REPORT OF SANITARY SEWER OVERFLOW (SSO) INSPECTION

AT The City of St. Peters, Missouri

100 Ecology Drive St. Peters, MO 63376

NPDES: MO0030970

BY U.S. ENVIRONMENTAL PROTECTION AGENCY REGION VII

ENVIRONMENTAL SERVICES DIVISION FIELD COMPLIANCE BRANCH

JANUARY 28, 29 AND 31, 2014

INTRODUCTION:

At the request of the Water Enforcement Branch, Water, Wetlands and Pesticides Division, I performed a Sanitary Sewer Overflow (SSO) Inspection, at the City of St. Peters, Missouri, on January 28, 29, and 31, 2014. The inspection was authorized by Section 308(a) of the Federal Water Pollution Control Act, as amended. To direct the inspection, a Sanitary Sewer Overflow (SSO) checklist was used that evaluates all important elements of the City's collection system. This narrative report presents the findings of the inspection. Messrs. Paul Mueller and Ryan Largura, from the Missouri Department of Natural Resources-St. Louis Regional Office, were present for the entire duration of the inspection.

PARTICIPANTS:

City of St. Peters, Missouri

- Timothy G. Myers, Director, Water Environmental Services
- William J. Malach, Manager, Water Environmental Services
- Lisa Johnson, Utilities Field Operations Forman, Collection System
- Brad Stittgen, Utilities Field Operations Operator, Collection System
- Danny Kinnaird, Utilities Field Operations Operator, Collection System

Missouri Department of Natural Resources-St. Louis Regional Office

- Paul Mueller, Environmental Specialist- Lincoln County Satellite Office
- Ryan A. Largura, Environmental Specialist, St. Louis Regional Office

U. S. Environmental Protection Agency - ENSV/EFCB - STC

• Naji J. Ahmad, Environmental Engineer

PROCEDURES:

I arrived at the Water Environment Services Division office at the Waste Water Treatment Facility (WWTF) in St. Peters, Missouri at 8:30 AM on January 28, 2014. I met with Ms. Johnson and Messrs. Malach, Meyers, Mueller and Largura. I introduced myself, presented my credentials and explained the purpose and procedures of the inspection. The procedures I used are documented in the Standard Operating Procedure (SOP) 2332.1B, NPDES Compliance Evaluation Inspection. These procedures included:

- 1. Completing the SSO inspection checklist (Attachment 1)
- 2. A check of the self-monitoring, preventative maintenance and cleaning records
- 3. Review of sanitary sewer overflow reports and records
- 4. Visually inspecting manholes and lift stations

I started my inspection by explaining to City personnel the purpose of my visit and information I need to complete my inspection. The purpose of my visit was to investigate the cause of repeated sanitary sewer overflows and basement backups in certain areas based on a citizen's complaint received by EPA's Regional Office.

After a detailed discussion of the City's collection system's maintenance and jurisdiction over neighboring communities, I spent the rest of the day completing the Sanitary Sewer Overflow (SSO) checklist and discussing City procedures for handling service calls and SSOs.

My review of sewer maintenance and complaint records focused on one area of concern. This area of concern includes four residential neighborhoods; Steeplechase, St. Marys, St. Peters Estate and Westwood. The four residential neighborhoods are all within the city boundaries of St. Peters but are not incorporated into the City. Instead they are in an unincorporated area of St. Charles County.

On January 29, 2014, Messrs. Mueller, Largura and I continued our review of the complaint and maintenance records. Later that day, I traveled with Ms. Johnson, Messrs. Malach, Meyers, Mueller, Largura, Stittgen and Kinnaird to the Westwood Neighborhood, specifically to the manhole (7070MH019) at the end of the Elm Ct. Cul-de-sac, and the manhole at the intersection of Oak and Homestead Drive (124 Oak) (7070MH013). We also looked at downstream of the manholes, at the siphon in the golf course across from the Dardenne Creek, as well as at the golf course lift station.

At the end of the day, we returned to the WWTF and I visually inspected the City's two new CCTV and line repair trucks. I then held a formal exit meeting with Ms. Johnson, Messrs. Malach, Meyers, Mueller and Largura. I discussed my preliminary inspection observations and

findings of the City's collection system. I also mentioned that I would like to get a copy of all illicit connection evaluations/studies/investigations conducted by the City staff or contractors (smoke test for instance) at these areas of concern. Messrs. Malach and Meyers informed me that they would like to consult with the City's attorney before providing me with the data. We agreed that they (Messrs. Malach and Meyers) would call me the next day to inform me if the City was or was not willing to provide me with the data. Mr. Meyers called me on March 30, 2014, and informed me that the City was gathering the data I requested and that it would be available to me on Friday January 31, 2014.

On Friday January 31, 2014, I arrived at the St. Peters City Hall at 7:30 AM. I met with Messrs. Malach and Meyers. They provided me with the data and analysis (Attachment 2)

COMMUNITY:

According to City staff, there are approximately 53,000 people living within the St. Peters city limits. The City has a total area of 22.37 square miles. The City owns and operates one Wastewater Treatment Facility (WWTF) under National Pollutant Discharge Elimination System (NPDES) Permit No. MO0030970. This facility receives domestic sanitary sewage from within the city limits, the City of O'Fallon and unincorporated parts of St. Charles County within the city limit but not annexed by the City. According to City personnel, the City does not have a signed agreement with St. Charles County but has one with the City of O'Fallon to accept their domestic waste. This statement contradicts my statement in the 2009 SSO report which, according to City personnel, I stated that the City had an agreement with St. Charles County and the City of O'Fallon. Messrs. Malach and Meyers indicated that for years they thought that the City had such agreement and that the City had the responsibility to maintain these parts of the County collection system that send sewage to St. Peters. This St. Charles County area includes the Westwood, St. Peters Estate, St. Marys and Steeplechase neighborhoods.

The responsibility of maintaining the City's collection system falls to the Water Environment Services Division. The division maintains a fleet of equipment and trained staff to provide routine preventive and specialized cleaning of all gravity and force main sanitary sewers.

The City dedicates nine (9) full time employees (FTEs) to operate and maintain the WWTF, four (4) FTEs to the collection system and two (2) FTEs to inspect and maintain the City's thirteen (13) lift stations.

The City's entire collection system is a domestic waste separate gravity sewer. The collection system within the service area has 18,017 residential connections and 924 commercial connections which includes three connections to Significant Industrial Users (SIU) and/or pretreatment industries where the wastewater is treated before being discharged into the collection system.

FACILITY DESCRIPTION

Sanitary sewer lines

According to City staff, the system has 250.5 miles of sewer lines and 6,366 manholes. Of those 250.5 miles, 244.3 miles are gravity sewers. Approximately 1.5 miles of the gravity sewer are greater than 36 inches in diameter, 4.5 miles are 19-36 inches in diameter and 238.3 miles are 8-18 inches in diameter.

Approximately 47.8 miles are made out of vitrified clay pipe (VCP), 1.8 miles are made out of reinforced concrete pipe (RCP), and 191.3 miles are made out of poly vinyl chloride (PVC). The rest are made out of ductile iron and insituform (CIPP).

Lift Stations

Currently, the City owns and operates thirteen sanitary lift stations. All but two lift stations are monitored 24 hours a day by the City via the SCADA system (7 lift stations are connected by spread spectrum radio band system and 4 by a UHF band radio system). Lift stations are inspected weekly. All lift stations are equipped with hourly meters. Nine (9) lift stations have an on-site auxiliary power generator and two have easy hook-up to a portable generator.

FINDINGS AND OBSERVATIONS

Based on my interview with City's personnel, visual observation of facilities and my review of records provided to me by the Water Environment Services Division personnel during my inspection, I did not issue a Notice of Potential Violation during my inspection.

- 1. According to Mr. Malach, the City has completed the Capacity, Management, Operation and Maintenance (CMOM) Self-Assessment (Attachment 3)
- 2. At the time of my inspection, City Staff were able to provide me with the physical characteristics (size, length, material, and number of manholes) of the collection system.
- 3. According to Messrs. Malach and Myers, the City had its collection system mapped using a geographical information system (GIS) mapping system.
- 4. Based on my records review and conversation with City staff, it appears that the City iscontinuing to focus on preventative maintenance. Records indicate that during a three year period (2011-2013) the City visually inspected 4,385 manholes, TV'ed 83 miles using the CCTV trucks and outside contractor, and visually inspected (surface inspection) 6.5 miles of gravity lines and 4000 feet of force main lines.
- 5. The City owns and operates two Closed Circuit TV (CCTV) camera trucks and two vactor trucks. In addition, the City has recently purchased two new CCTV trucks in January 2014.

- 6. During a three year period (2011-2013), the City's four-man crew cleaned 90.8 miles of sewer lines using the two vactor trucks.
- 7. The City continues the implementation of a Residential Sewer Lateral Repair Program for residents who are located within the city limits of St. Peters. The Sewer Lateral Repair Program provides a maximum of \$7,500.00 per household as assistance for the repair of the sewer laterals that connect to a City main line.
- 8. According to the City's 2011, 2012 and 2013 annual reports sent to MDNR (Attachment 4) as required by the NPDES permit, 1,245 laterals were inspected. Of those 1,245 laterals, 224 were repaired or replaced as part of the City's Lateral Insurance Program. The City inspected laterals using the CCTV for defects and I&I issues. The City also budgets \$500,000 per year for private lateral inspections and repairs. Breakdown of such activities is shown in Table-1 below.

Table-1, Laterals inspected /repaired during 2011-2013

Type	Inspected	Repaired or Replaced
New home construction	821	51
Walk-in (Reactive)	186	173
Targeted areas (preventative)	238	176
Total	1,245	224

- 9. According to Mr. Malach, in addition to the City rehabilitation program for manholes, the City continues to sign annual contracts for root-cutting, CCTV, and flushing of sewer lines. In addition, the City budgets funds for pipe lining, backups, cleaning and emergencies.
- 10. As mentioned above, the City receives and treats domestic wastewater from several residential neighbor-hoods that are located in St. Charles County areas that are not annexed into the City but are within the City boundaries and its collection system. Those approximately 780 homeowners pay a fee to the City to treat their domestic waste.
- 11. According to City staff, the collection system doesn't have significant issues with grease because a City ordinance requires food establishments to install grease interceptors, which must be easily accessible for maintenance, repair and inspection by City staff. According to City personnel, the City has one FTE dedicated to inspecting food establishments. The City continues to inspect grease interceptors. City ordinance requires all grease interceptors to be serviced and cleaned, and written records of grease interceptor maintenance activities must be documented.
- 12. Based on the information provided to me by the Water Environment Services Division staff, two FTEs are responsible for inspecting and maintaining the lift stations. Lift stations are inspected weekly.
- 13. The City continually monitors eleven (11) lift station alarm conditions by using the SCADA

system via either a spread spectrum radio band system or a UHF band radio system. The Golf Course and the CMPF lift stations are not connected to the SCADA system. The CMPF lift station is located near the main gate of the WWTF and the Golf Course lift station is a smaller lift station that receives discharge from the four residential subdivisions within the County limits (mentioned above). This lift station is on a gravity sewer and it is used during high flow or when the Dardenne Creek is above its normal stage. The station would then pump into the main trunk line along Dardenne Creek which flows into the Brown Road lift station. I inspected the Golf Course lift station and it appeared to be in a good physical structure and well maintained. This lift station is inspected weekly.

- 14. Currently, the City provides an on-site power generator to eight lift stations, and is in the process of adding a generator to the Salt River Rd lift station. Both the CMPF and the Golf lift stations are each equipped with a ready-hookup to a portable generator, and the Emerald Cove lift station has an overflow structure that allows excess wastewater to be redirected to another line.
- 15. The Emerald Cove lift station was built in 2011 and it is designed with an overflow structure that diverts the overflow to the City of O'Fallon. The City pays the City of O'Fallon for the diverted flow.
- 16. All overflow and bypass reports are sent to MDNR electronically through the State website.
- 17. During my review of SSO reports sent electronically to MDNR by the City, and comparing them to those at the MDNR St. Louis Regional Office, I noted that two of the reports did not have confirmation numbers which indicate that they were not sent to the state. This is a malfunction while being sent through the state web site and was not done intentionally. Those two reports are kept by the City with the SSO records sent to MDNR (Attachment 5, marked A and B).
- 18. As mentioned above, the purpose of my inspection was based on citizens' complaints due to repeated sewer backups into their basements. The complaints are specific to manhole 7070MH019 at the end of the Elm Ct. Cul-de-sac, and manhole 7070MH013 at the intersection of Oak and Homestead Drive (124 Oak) in the Westwood neighborhood.
- 19. I traveled with Ms. Johnson, Messrs. Malach, Meyers, Mueller and Largura to visually inspect those two locations. City personnel had marked the inside of the manholes, as shown in DSCN1739 below, to the level that will cause basement backups if water exceeds the mark. City personnel explained that this occurs only during wet weather events. They added that City crews monitor water levels closely to avoid basement backups.
- 20. City personnel mentioned that during wet weather high flow, when the system can't handle the amount of flow, City personnel pump the two manholes into the nearby stormwater inlets shown in DSCN1741 and DSCN1753 below. According City personnel these stormwater inlets discharge directly into the grassy area within the Dardenne Creek flood plain (which is

underwater during the discharge). This field action was not mentioned in the reports sent to MDNR. I pointed out to Ms. Johnson, and Messrs. Malach and Meyers that such field actions must be mentioned in the SSO reports and the State should be informed of such actions. Messrs. Mueller and Largura agreed with my comment.

I also visually inspected the manholes downstream from the two manholes all the way to the manhole at the bank of Dardenne Creek. In addition, I inspected the siphon in the golf course across Dardenne Creek, and as well as golf course lift station. The purpose of my visual inspection of these manholes was to investigate the possibility of system bottle necking that might be the cause of the high levels of water in the manholes. Although the two manholes are in higher elevation than the downstream manholes (moving toward the Dardenne Creek) it appeared to me that the depth of the downstream manholes was the same as the two upstream manholes. All downstream manholes were bolted down to prevent vandalism and sanitary sewer overflowing in the flood plain since all of those manholes are located within the Dardenne Creek flood plain.

- 5. City personnel were unable to identify the actual depth of the manholes to support or deny my field observation. I requested City personnel verify the depth and investigate any system limitations issues caused by bottle necking.
- Upon my return to the Water Environment Services Division office, Messrs. Mueller, Largura and I continued our review of cleaning and preventative maintenance activities focusing on the area of concern.



DSCN1741, Stormwater inlet where City crews pump sanitary sewer from manhole 7070MH019



DSCN1753, Stormwater inlet where City crews pump sanitary sewer from the manhole 7070MH013



Records (Attachment 6) indicate that the City is routinely inspecting this area using CCTV, especially inspecting the two manholes to ensure that lines and manholes are free of roots and grease.

- 7. The City received a bid from a consultant to conduct a study of the Steeplechase, Westwood and St. Mary's sanitary sewer area study (Attachment 7).
- 8. The City collected flow/rainfall data from the Westwood sanitary sewer (Attachment 8) after smoke test investigations revealed a significant number of illegal connections to the county's sanitary sewer collection system (Attachment 9 on CD#1) which could be the major cause of basement backups and/or bypassing sanitary sewage to the county's storm sewer system.
- 9. During our detailed discussion of the St. Charles County area, Messrs. Malach and Meyers informed me that the City is currently under legal litigation/ dispute with some home owners from the Westwood neighborhood because of the repeated basement backups. Messrs. Malach and Meyers added that the City attorney was not able find any legal agreement with the County to maintain the collection system in those areas. Moreover, the City does not have legal authority to eliminate illegal connections to the collection system in these areas.

CONCLUSION

The City of St. Peters continues its active managment and maintenance of its sanitary sewer collection system. The number of preventative maintenance activities performed on the collection system has minimized the number of sanitary sewer overflows during dry weather but continues to have SSOs during wet weather especially at the area of concern.

In the case of the unincorporated St. Charles County areas including the Westwood, St. Peters Estate, St. Marys and Steeplechase neighborhoods, the City does not have the legal authority to enforce its ordinance on illicit connections and dischargers. However, historically, City personnel thought that it was the City's responsibility to clean and maintain the collection system and report any sanitary sewer overflows in these areas located within the city boundaries and they continue to maintain and report incidents involving these areas.

To avoid basement backups during high rainfall, the City has pumped the manholes of concern (unplanned SSO) into the stormwater sewer system. However, such actions were not properly explained to the MDNR in the SSO reports for those events.

RECOMMENDATIONS

1. The City should insure that all bypasses and SSO occurrences are reported to MDNR as required by the NPDES permit and that all basement backups are documented. Reports should include a clear description of the discharge and cause of noncompliance, the period of

noncompliance, including exact dates and times or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate and prevent recurrence of the non-complying discharge.

The City should carefully and throughly explain its on-site actions during a bypass or/and overflow of sanitary sewers. Explanation of City actions must be included in the reports sent to MDNR.

Naji J. Ahmad

Environmental Engineer

ENSV/EFCB-STC

March 11, 2014

ATTACHMENTS

- 1. Sanitary Sewer Overflow (SSO) Checklist (7 pages)
- Maps (9 Large Page)
- CMOM (113 pages)
- 4. 2011-2013 annual reports (20 pages)
- 5. SSOs/overflow reports (15 pages)
- 6. Preventative maintenance records (33 pages)
- St Charles County Sewer Service Study (7 pages)
- 8. Flow studies (3 pages)
- 9. Two Maps showing illegal connections to the county collection system (on CD #1)
- 10. Site photos (13 pages) and CD #1

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D	TO	TA		OG
-	-			

DSCN1738-DSCN1741	Manhole 7070MH019
DSCN1742-DSCN1748	Manholes downstream from Manhole 7070MH019 & 7070MH013
DSCN1749	Downstream pipe from Manhole 7070MH013
DSCN1750-DSCN1751	Manholes downstream from Manhole 7070MH013
DSCN1752-DSCN1753	Manhole 7070MH013
DSCN1754-DSCN1757	Manholes in the golf course downstream from Manhole
	7070MH019 & 7070MH013
DSCN1758	golf course lift station

Attachment 1



WASTE WATER COLLECTION SYSTEM ASSESSMENT SANITARY SEWER OVERFLOW (SSO) CHECKLIST

General Infor	mation					
Agency Name	e City	of St. Peters, Misso	ouri	1.00	100030970	
Agency Addr		Ecology Drive, St. P	eters, M	O. 63376		
Contact Perso	46.4	Malach B HAML/N				
Period data re	THE PERSON NAMED IN	11-2013			or other party	and the same
Date of Inspo	ction: JAN	UARY 28-29.	Inspector	rs: Naji J. Ah	mad, EPA-ENS	V/EFCB
System Descri	iption					-
	(Square Miles		22	Avg. Annual Pr		
Average dry v	weather (ADV	V) flow (MGD)	5.15*		53,000	
		W) flow (MGD)	5.68*		3	-
Maximum we	t weather (M)	WW) flow (MGD)	11.30*		1	
			* 2013	DATA		
Number of en				- 0	33.03.000	0
Collection sy		4 Pump syste	m.	5	WWTP:	9
TRAIN		11		5		10
Number of Sc			0.2		Acun	um ellande
Residential	18,017		92			VED W/ COUL
System Com	bined: N	10 If yes, %:	City R	esponsible for La	terals?	NO
YES NO	Precipitation Terrain? Soils? Temperature	or River stage?				
x	Groundwate					
x	Geology?					
	Geology.					
Preventive me	asures and p	rograms				
YES NO		A WILLIAM				
×	Corrosion?	Attach copy of progra	am if avai	lable.		
X	Odor? Attac	th copy of program if	available			
X	Grease? Att	ach copy of program	if availab	le FOG		
×	Roots? Atta	ch copy of program i	f available	e		
X	Completed C	MOM7 PROVID	DED AT	INSPECTION		
X	Capital Impr	ovement Plan?				
System Invent Miles of gravity sewer	Miles of force main	Number of access structures (manhole		np siphons	Number of air vacuum re	
244.3	1. 2	4.366	station		-	0.00
679.3	4.6	4,000	- 1	2 /	/	

COLLECTION SYSTEM INFORMATION (MILES OR FEET)

	ON SYSTEM INFORMATION (MILES OR I	Gravity Sewer	Force Mains (miles)	Pump Stations
Total	Length	244.3	6.2	
	Number			13
Age	0-25 years	84.2	4.5	
	26-50 years	160.1	1.7	
	51-75 years			
	> 75 years			
Diameter	<8 inches			
	8-18 inches	238.3	6.2	
	19-36 inches	4.5		
	>36 inches	1.5		
Materials	Vitrified Clay Pipc (VCP)	47.8		
	Reinforced Concrete Pipe (RCP)	1.8		
	Un-reinforced Concrete Pipe (CP)			
	Plastic			
	Brick			
	Pre-stressed Concrete Cylinder Pipe (PCCP)			
	Ashestos Cement Pipe (ACP)			
	Poly vinyl Chloride (PVC)	191.3	6.2	
	Steel			
	Ductile Iron	1.8		
	Cast Iron			
	Technic (RPMP) INSITUFORM (CIPP)	0.8		
	High Density Polyethylene (HDPE) Fiberglass Reinforced Plastic (FRP)	0.8		
	Grand State of State	1		1

COMMENTS:

CORRECTIVE MAINTENANCE OF SYSTEM

Period Data Reviewed	12011	2012	2013	
Number of complaints:	118	79	92	provide map if available)
Odor Complaints	4	20	10	
Grease Complaints	0	0	0	
Private line Backup	82	42	84	
City Line Backup	6	5	32	
Number of basement back ups:	108	94	139	
Number of overflows:	4	3	7	
Number of overflows reaching water;	4	1	6	
Number of reported overflows.	4	3	7	
Number of issued public warnings:	0	0	0	
Number of claims for damages due to backups	2	4	29	

What are the causes for the overflows?
WET WEATHER, GREASE

What are the documentation and notifications procedures?
 550 PEPORTS

3. Are there any problematic areas of the city for overflows? Why?

DAR DENNE CREEK - OLDER SYSTEM, WALKOUT DRAWS COUNTY RESIDENTS ON

LITY SENER)

4. Are the repairs categorized (such as emergency or routine, wet weather or dry weather)? YES (REPORTS FOR EMERGENCY OF LOUTINE REPAIRS

OTHER COMMENTS:

PREVENTIVE MAINTENANCE		2011	-201	2-2013	
Inspection Activity	Total FTE Staff		al com	pleted inholes)	Crew Size
CCTV	4			8 22.5	
Rod					
Visual Manhole Inspection (remove cover)	4	1338	160	3 1444	
Visual Gravity Line Inspection (surface only)	2	4.5	0	0	
Visual Force Main Inspection (surface only)	2	0	0	4,000FT	

COMMENTS

THE CCTV IS A COMBINATION OF CONTRACTOR AND CITY INSPECTIONS.
VISUAL INSPECTION OF CRAVITY LINES AND FORCE MAWS ARE DONE ON
A CONCERN BASIS ONLY, WEDID INSPECT SALTRIVER FORCE MAIN IN 2013.

Total FTE Staff	Cleane	d Ann	ually	Crew	Pipe Diameters Cleaned
4	25.5	34.8	30.5	4	8"-18"
			- 4		
	FTE	FTE Cleaner Staff 2011	FTE Cleaned Ann Staff 2011 2012	FTE Cleaned Annually Staff 2011 2012 2013	FTE Cleaned Annually Crew

COMMENTS: THE CITY OWNS 2- VACTOR TRUCKS AND 2-TV TRUCKS

POSSIBLE PROCEDURES (check those applicable and provide copy)

Overflow Event Report (supply example) (PROVIDED DURING INSPECTION)

Overflow problem evaluation and solution form

Procedure for clean up to mitigate effect of overflows

Procedure to contain overflows and bypasses

Long range Capital Investment Program (CIP) ON WEBSITE WWW. STPETERS NO. NET

Private source I/I reduction Program. SEWER LATERAL PROCLAM

Pre-treatment Program

Chemical or biological grease control

Name/location	Address	# of pumps Needed vs. actual (1)	Back-up power Type. (2)	Pump Capacity (3)	Capacity limitations? (4)	Last calibration (head/cap)	Flow meters? Type. (5)	Last calibrated meter?	Remote sensing ? Type. (6)	Last Inspected	2
AMHERST	3533 MIDRIVERS MILL DR		В	175			C		RADIO	2/6/14	
BROWN ROAD	100 BROWN ROAD	2	B	2796			C		RADIO	2/6/14	
CMPF	101 ECOLOGY DE	2	C	87					NIA	2/6/14	
EMERALO COVE	828 BELLEAU CLEEK RO	2	FLOW	326			C		RADIO	2/6/14	
GOLF COURSE	The second secon	2		825			C		N/A	2/6/14	
PARK STREET	The first section of the section of	2		540			C		RADIO	2/6/14	+
SALT RIVER RD		2 2	FUTULE GEN	625 326	Ŧ.		C		RADIO UHF RADIO	2/6/14	
TURN BERRY	INDUSTRIAL DRIVE	2		360	1 2		C		RADIO		
IENTULE	3940 VENTULE DL	2	_	840			c		RIDIO	2/6/14	
370 P.S. M.1	PREMIER PARKWAY &	3		1310		1	C		S.S RADIO	2/6/14	
70 1.5. #2	PREMIER PARKWAY &	3	B	1230			C		RADIO	2/6/14	
370 P.S. #6	PREMIER PARKWAY ? EXECUTIVE CENTER PRWY	2	В	438			C		5.3. RADIO	2/6/14	

(1) (2) (3) (4) (5) (6) (7)

The number of needed pumps to cover wet weather peak flows/ the number of actual pumps. Type: a) dual power fee, b) on-site generator, c) portable generator. Per pumps combined Y/N for dry weather and Y/N for wet weather Type: a) mechanical, b) electronic, c) hourly, d) other Type: a) SCADA, b) telephone, c) other (7) Inspection Frequency.

5. S. PADIO — SPREAD SPECTEUM. UHF - MCZ BAND

OTHER INFORMATION

FINANCIAL

Total annual revenue for wastewater collection and treatment

\$ 4,100,701

% Revenue for long term collection system

% Revenue for treatment and disposal

% Revenue for collection and conveyance

VALUE OF COLLECTION SYSTEM ASSETS

Original cost

* 22,650,655

Replacement

TOTAL EXPENDITURES

O&M Expenditures

CIP Expenditures

O&M Training Program

(Number of certified collection system staff)

AVERAGE ANNUAL RATE-RESIDENTIAL

\$330,000° * 551,229*+ 9,215

2.34/1,000 GAL + \$3.32 BILLING CHARGE

2013

0

0

0

SAFETY

Number of lost time injuries

Total lost time

Total cost of lost time injuries

REGULATORY

Number of state violations issued Number of federal violations issued

Cost of fines paid due to violations

2011 0

2011

10 DAYS

10,000

0

2013 2012

2012

0

0 0

COMMENTS:

WASTE WATER TREATMENT FACILITY INFORMATION

Age since installation or last maje	2010						
Years in position of superintende							
Years in position of superintende	15 PUMP STAT	nous/2 collec					
Design Flow (Design/actual) MG				(9.5/5.5)			
Name of Stream				SPENCER	CREEK		
				1			
IEADWORKS							
No. of Pumps	5	Size:	2-25H	, 1-15 HP, 2-	88 HP		
NO. Bar Screen	1	Size:	21 M				
Grinder, Type AUGEL MONSTOR	2	Size:	14 M	CD			
Other		Size:					
PRIMARY TREATMENT							
No. of Primary Clarifiers:		Size:					
Other:		Size:		4			
No. of Sequential Batch Reactor No. of Secondary Clarifiers: Other:	(SDIC).	3	3 0	ze iameter Size: ze:	95FEET		
FERTIARY TREATMENT	- C	B	1	M. CD. B.	100		
No. of UV Units: 2	No. of	Banks:	9	No. of Bulbs	192		
Chlorination							
Other							
Other							
Other SLUDGE HANDLING							
Other SLUDGE HANDLING Sludge digester No							
Other SLUDGE HANDLING Sludge digester No Anaerobic basin No							
Other SLUDGE HANDLING Sludge digester No Anaerobic basin No Aerobic basin No	4						
Other SLUDGE HANDLING Sludge digester No Anaerobic basin No Aerobic basin No Land Application Yes							
Other SLUDGE HANDLING Sludge digester No Anaerobic basin No Aerobic basin No							

DESCRIBE RECENT UPGRADES (*)
MODIFICATIONS TO THE HEADWORKS FACILITY AND OXIDATION BASINS,
NEW FINAL CLARIFIERS AND RETURN SLUDGE PUMPING, ELECTRICAL
SERVICE AND GENERATOR, AND UV DISINFECTION FACILITY

Attachment 2















Attachment 3

CITY OF ST. PETERS, MISSOURI

CAPACITY, MANAGEMENT, OPERATIONS AND MAINTENANCE (CMOM) PLAN

SECTION 1 – Overview

SECTION 2 – Management Plan

SECTION 3 – Operation and Maintenance Plans

SECTION 4 - Capacity Plan

SECTION 5 – Overflow Response Plan

SECTION 6 – Condition Assessment Program

SECTION 7 – Communication Plan

SECTION 8 - Audit Plan

APPENDIX A - List of forms

- 1. Initial Inspection Field Form Manhole Information
- 2. Grease Interceptor Inspection Report
- 3. Smoke Test Form
- 4. Sanitary Sewer Back-Up Overflow Report
- 5. Report of Sanitary Sewer Overflow (SSO) or Wastewater Treatment Plant Bypass (DNR)
- 6. Work Order/Complaint Log
- 7. Sanitary Sewer Back-Up Follow-Up Investigation Report
- 8. Sample Concern Report

APPENDIX B – Standard Procedures/City Policies

- 1. Sanitary Sewer Maintenance Procedures
- 2. Grease Trap Cleaning Procedures
- 3. Sewer Backup Reporting Procedures
- 4. Sanitary Sewer Inspection Procedures
- 5. Vac Truck Storm/Sanitary Flushing Procedures
- 6. Sanitary Sewer Repair Procedures
- 7. Administrative Policy No. ADM-16 Utility Settlement Under Private Driveways
- 8. Administrative Policy No. ADM-20 Sanitary Sewer Backup Concerns
- 9. Administrative Policy No. ADM-34 Sewer Lateral Repair Program

APPENDIX C – Other References

- 1. Smoke Testing Notification Letter
- 2. Municipal Code of the City of St. Peters Chapter 710: Sewers
- 3. Ordinance No. 5023 Fats, Oils and Grease Control (FOG)
- 4. FOG Best Management Practices
- 5. City of St. Peters Fats, Oils and Grease Program (FOG) Pamphlet
- 6. Annual Report Letter to DNR
- 7. Municipal Code of the City of St. Peters Chapter 715: Uniform Requirements for Direct and Indirect Contributors into the Waste Water Collection and Treatment System
- 8. Ordinance No. 646 (Pretreatment Ordinance)

SECTION 1 – OVERVIEW

1.1 Background and Information

The City of St. Peters was founded by French traders in the late 18th Century, and grew into a prosperous farming community with the addition of German immigrants from 1830 to 1850. St. Peters incorporated as a town in 1910 and became a City of the Fourth Class under Missouri statutes in 1959. This new classification allowed St. Peters to issue bonds to build an infrastructure for water and wastewater treatment. In 1970, St. Peters population was 486, but the groundwork was set to handle amazing growth—from 470 people in 1970 to 17,029 in 1980 to 45,779 in 1990 to 56,500 today.

St. Peters currently operates and maintains a sanitary sewer collection system which consists of 219 miles of sanitary sewers. The sanitary sewer system pipes range in size from 8" inches to 42" inches in diameter. Pipe materials in this system include PVC, HDPE, ductile iron, and vitrified clay.

The wastewater from the City of St. Peters sanitary sewer system is treated by the City's Spencer Creek Wastewater Treatment Plant.

A Capacity, Management, Operation and Maintenance (CMOM) Plan is required to comply with the City of St. Peters Spencer Creek WWTP NPDES Permit. The overall intent of the CMOM Plan is to protect the City residents and the environment with acceptable treatment and wastewater conveyance that meets local, state and federal laws.

1.2 CMOM Program Objectives

An effective CMOM program:

- 1. Protects human health including drinking water, swimming, and fishing.
- 2. Protects the local economy by preventing property damage.
- 3. *Protects infrastructure investment* by properly maintaining the sewers to reduce emergency repairs and extends the system life.

1.3 CMOM Program Components

The CMOM Plan includes the following components:

- Section 1 Overview
- Section 2 Management Plan
- Section 3 Operation and Maintenance (O&M) Plan
- Section 4 Capacity Plan
- Section 5 Overflow Response Plan (ORP)
- Section 6 Condition Assessment Plan

- Section 7 Communications Plan
- Section 8 Audit Plan

1.4 Definitions

For the purpose of this document the following definitions pertain:

- 1. City City of St. Peters.
- 2. **CMOM** Capacity, Management, Operation and Maintenance. A program to efficiently operate and maintain collection system assets to minimize performance failures and overflows.
- 3. CWA Clean Water Act.
- 4. Code Municipal Code of the City of St. Peters
- 5. **Collection System** is defined as the City's sanitary sewer system including sanitary sewers, manholes, and associated equipment.
- 6. **Concern** is defined as a record of a service request/complaint/problem expressed and entered into a City computer program.
- 7. **DNR** Missouri Department of Natural Resources.
- 8. **EPA** United States Environmental Protection Agency.
- 9. **FSE** food service establishment.
- 10. **Infiltration** water other than wastewater that enters a sewer system (including sewer service connections) from the ground through such sources as defective pipes, pipe joints, connections, or manholes. Infiltration does not include, and is distinguished from, inflow.
- 11. Inflow water other than wastewater that enters a sewer system (including sewer service connections) from sources such as roof leaders, cellar drains, yard drains, area drains, foundation drains, drains from springs and swampy areas, manhole covers, cross connections between storm sewers and sanitary sewers, catch basins, cooling towers, storm waters, surface runoff, street wash waters, or drainage. Inflow does not include, and is distinguished from, infiltration.
- 12. I/I is Infiltration/Inflow abbreviation
- 13. MSD Metropolitan St. Louis Sewer District.
- 14. NPDES EPA's National Pollutant Discharge Elimination System program.
- 15. Sanitary Sewer Overflow (SSO) is a condition whereby untreated sewage from the City's sanitary sewer collection system is discharged into the environment prior to reaching treatment facilities thereby escaping wastewater treatment. It is also considered a discharge of sewerage to water of the State. When caused by rainfall it is also known as wet weather overflow. SSO is also referred to as "confirmed sewage spill," "sewer overflow," or "overflow."
- 16. O & M Operations and Maintenance
- 17. CIP Capital Improvement Plan

SECTION 2 - MANAGEMENT PLAN

2.1 Background and Information

A Management Plan describes the approach that the City is undertaking to implement their CMOM Plan. The Management Plan consists of the following components:

- 1. Mission Statement
- 2. Goals
- 3. Organization
- 4. Management of Assets
- 5. Customer Service
- 6. Legal Authority
- 7. Fiscal
- 8. Data Management
- 9. Standard Design, Construction and Inspection
- 10. Training
- 11. Performance Measures

2.2 Mission Statement

The City developed a mission statement for their CMOM Program.



MISSION STATEMENT

To protect the health, safety, and welfare of the residents of the City of St. Peters, while protecting the environment, through cost-effective and efficient collection, treatment and conveyance of wastewater in accordance with applicable local, state and federal laws.

2.3 Goals

The goals outlined below contribute to the overall mission and address issues of health and safety, cost-efficient operation and compliance with applicable law. See Table 2-5 linking goals with performance measures.

- 1. Comply with NPDES Permit
- 2. Minimize the occurrence of overflows
- 3. Improve or maintain system reliability
- 4. Maintain assets cost-effectively through a rehabilitation and replacement program based on condition assessment
- 5. Provide first-class customer service
- 6. Reduce the potential threat to human health from sewer overflows
- 7. Provide adequate capacity to convey peak flows
- 8. Manage I/I
- 9. Protect collection system workers' health and safety
- 10. Operate a continuous CMOM Program
- 11. Maintain annual cleaning and inspection programs
- 12. Continue cost-efficient operation of the sewer utility

2.4 Organization Structure

The City owns and operates a wastewater collection system. Within the Water Environment Services Group, there are four (4) full-time Field Operations employees dedicated solely to sanitary sewer issues. There are also two (2) Foremen, an Environmental Compliance Inspector and seven (7) plant maintenance employees who dedicate time to sanitary sewer issues.

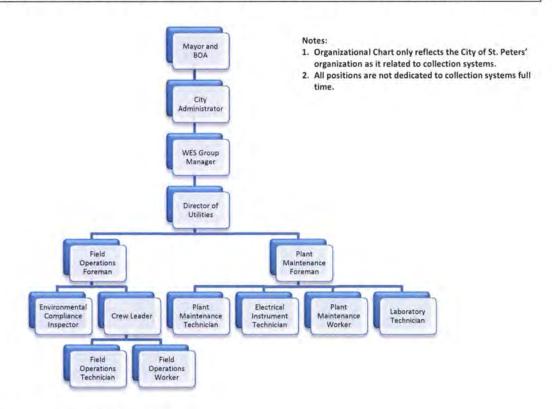
The Water Environment Services (WES) Group Manager and Director of Utilities allocate significant time to the management of the utilities.

The City reviews staffing needs on a regular basis. This review process will continue throughout the administration of the CMOM Program. See Table 2-1 for City staff responsibilities and Figure 2-1 for the City Organizational Chart as it relates to the collection system.

Table 2-1 City Staff Responsibilities

Title	Responsibilities
Mayor and Board of Aldermen	Elected officials who serve a policy-making role for the City.
City Administrator	Reports to the Mayor and manages all personnel, procurement, budget and overall operation of City activities including the collection system.
Water Environment Services (WES) Group Manager	Responsible for implementing and monitoring the CMOM Program. Is also responsible for the collection system and all other functions of the WES Group.
Director of Utilities	Oversees day to day operation and monitoring of the City's collection system and wastewater plant. Also responsible for monitoring the CMOM Program.
Plant Operations Foreman	Responsible for oversight of daily water and wastewater plants operations. Also, oversees lab functions and Pretreatment Program.
Plant Maintenance Foreman	Responsible for oversight of all pumps stations, sanitary sewer lift station inspections, maintenance, repairs, and rehabilitation recommendations.
Field Operations Foreman (Sanitary)	Responsible for oversight of Sewer Lateral Repair, Fats, Oils & Grease (FOG), and Water Lateral Repair programs. Additionally, addresses resident concerns regarding sanitary sewers, maintenance, and repairs.
Crew Leader	Responsible for sanitary sewer crew which install, repair, and maintain sanitary sewer lines and associated appurtenances.
Environmental Compliance Inspector	Responsible for day to day operations of the Sewer Lateral Repair, Water Lateral Repair, and FOG programs.
Maintenance Technician	Responsible for the maintenance of the water and wastewater plants, pump stations, and lift stations.
Electrical Instrument Technician	Responsible for maintenance of telemetry and SCADA system.
Field Operations Technician	Responsible for installing, repairing and maintaining sanitary sewer lines.
Plant Maintenance Worker	Responsible for the maintenance of the water and wastewater plants, pump stations, and lift stations.
Field Operations Worker	Responsible for installing, repairing and maintaining sanitary sewer lines.
Laboratory Technician	Responsible for implementing Pretreatment Program.

Figure 2-1
City of St. Peters Organizational Chart 2012 – Collection Systems



2.5 Management of Assets

- 2.5.1 The cost-effective management of assets is a critical CMOM program goal. The City currently uses a computer program to track all activities and concerns/service requests. Activities necessitating work orders are entered into a computer-based database program and paper work orders are generated. The information and responses by staff are noted on the work order and then entered into the database. Concerns/service requests are taken by City staff or elected officials and entered into a computer program designed for the City. An example of each form can be found in Appendix A. The City reviews and updates these forms on a regular basis.
- 2.5.2 Sewer Maps. The City has a GIS based sanitary sewer map showing key assets including sewers and manholes. In addition, the City maintains the GIS system identifying assets that were inspected.
- 2.5.3 Operation and Maintenance Programs See Section 3 for more details.

- 2.5.4 Condition Assessment Program. The City currently has a program to evaluate, on a routine basis, the condition of the collection system assets. This assessment is used to budget and plan for upcoming rehabilitation and replacement programs. See Section 6 for more details.
- 2.5.5 Equipment and Spare Parts. To perform routine operations and maintenance, respond to emergencies and prevent sanitary sewer overflows, it is critical to have adequate equipment. A list of equipment and that the City owns and maintains can be found in Table 2-2.

Table 2-2 City of St. Peters Equipment								
Description	Model	Qty	Capacity	Year Purchased				
Cues TV/Grout truck	GMC	1	1500 ft of cable	1995 (updated 2003)				
Cues TV truck	Ford	1	1000 ft of cable	2003				
Vactor truck	Sterling	1	1000 gal water 2000 gal debris	2008				
Vactor truck (backup)	Sterling	1	1000 gal water 2000 gal debris	1999				
Utility truck	Ford	1	F450	2004				
6" portable pump	Godwin	1	1700 gpm	2010				
4" portable pump	Homelite	1	433 gpm	2002				
3" portable pump	Honda	1	319 gpm					
2" portable pump	Honda	3	187 gpm	1999, 2002, 2004				
Flow meters	Sigma 910	3		2000				
Gas Detectors	B&W	4		2011				
Forced Air Blowers		2		1999				

2.5.6 Critical structures in the collection system have been identified. These are outlined in Table 2-3.

Table 2-3 Critical Infrastructure – City of St. Peters						
Description Location Manhole						
Creek crossing	Mexico Rd across from Hospital Drive	7370MH601				
Wooded area	Bramblewood Drive	7368MH182				
Wooded area	Main Street	7071MH025				
Creek crossing	Spencer Creek Park	7369MH059				
Dardenne Creek Crossing	Dardenne Creek	N/A				
Spencer Creek siphon	Spencer Creek WWTP	7271MH015				
Dardenne Creek siphon	St. Peters Golf Course	6970MH386				

2.6 Customer Service

Customer service delivery is key for an effective CMOM program. The program is monitored, in part, based on the time necessary for response to and resolution of a problem. Tracking these issues provides valuable information related to system functionality, including identification of laterals (customer obligation) versus mains (City) issues. The City has a computer system to document customer calls and is using this as a tool to address problem areas and ensure that all work is documented. A copy of a concern report can be found in Appendix A.

The City's website is used to inform utility customers of upcoming projects and provide access to current ordinances, newsletters, and staff contact information. Newsletters containing this information are also mailed to City residents on a monthly and bi-monthly basis.

In addition to the above listed forms of communication disseminating information regarding utility issues, the City's televises information on SPTV, a local government access television station.

See Section 7 Communication Plan for other details related to communications.

2.7 Legal Authority

Legal authority consists of the Municipal Code of the City of St. Peters and ordinances and the enforcement of the Code and ordinances as allowed by the Revised Statutes of Missouri (RSMo). The City reviews and updates the Code on a regular basis. The Code is available for viewing on the City's website. The City currently has the following Code sections and ordinances pertaining to collection systems:

- 2.7.1 The Municipal Code of the City of St. Peters governs the construction of sanitary sewers and provides for use regulations and charges. (Titles II, IV, V, and VII)
 - 2.7.1.1 Code Chapter 710 regulates the construction and use of public and private sewers that drain into the public sewerage system within the City of St. Peters.
 - 2.7.1.2 These regulations imply that individual property owners are required to maintain sewer service from the street main to the property and to prevent unnecessary overburdening of the sewer system. City has the legal authority to require property owners to comply with these regulations.
 - 2.7.1.3 City is committed to enforcing Code to ensure that clear water is not entering the system.

- 2.7.1.4 City reviews applicable Code and ordinances on a regular basis to provide the necessary enforcement tools to ensure that significant clear water from other sources is not entering the collection system.
- 2.7.2 Code implies the requirement that the property owner maintain their sewer lateral at their own cost.
 - 2.7.2.1 City passed Ordinance No. 5023 on June 12, 2008, and amended on April 14, 2011, by Ordinance No. 5573, which regulates Fats, Oil and Grease (FOG) discharges. Fats, oil and grease can coat, congeal, and accumulate in pipes, leading to costly and hazardous flow of grease into laterals and sewers and entering the collection system. They can accumulate on sewer pipe walls causing blockages and foul odors in the sewer system. Fats, oil and grease in the sewers is typically from improper management of grease traps in food establishments such as restaurants, schools, and coffee shops.
 - 2.7.2.2 Code Chapter 710.210 currently addresses the inspection of grease traps. The enforcement of Code is currently handled by the Environmental Compliance Inspector or his/her designee. In addition, the Environmental Compliance Inspector or his/her designee may request grease traps in food establishments to be installed.
 - 2.7.2.3 Grease traps or separators must be properly maintained and cleaned on a regular basis to properly remove grease. The food establishment needs to document the maintenance and cleaning.
- 2.7.3 The city is committed to enforcing ordinances to ensure that clear water is not entering the system and to prevent illegal discharges into the collection system.
- 2.7.4 The City also complies with the following:
 - Any other pertinent Code, ordinances, rules and/or regulations
 - NPDES Discharge Permit #MO-0030970
 - MS4 Permit #MO-R040044

2.8 Fiscal Programs

The City currently charges a sewer fee based on water consumption and has raised rates as necessary to fund the operation and maintenance along with capital improvements to the collection system. This rate is reviewed annually. The City also uses the following factors to review rates:

- O&M Programs see Section 3.
- Condition Assessment Programs see Section 6
- Recommendations to reduce I/I.
- Capital Projects.

2.9 Data Management

- 2.9.1 The City has a GIS system in place. This system is utilized and updated on a continual basis.
- 2.9.2 The City currently uses a computer program to track all maintenance activities including inspection, cleaning, rehabilitation and replacement projects. An example of the forms can be found in Appendix A. The City reviews and updates these forms on a regular basis.

2.10 Standard Design, Construction, and Inspection

2.10.1 The City utilizes services of an engineering consultant for the development and design of sewer system improvements. Standard specifications for sewer design are dictated by City Code and MSD's Standard Construction Specifications for Sewers and Drainage Facilities (2009).

2.11 Training and Education

- 2.11.1 Safety. The City provides safety training on a regular basis.
- 2.11.2 Equipment and Tools. The City uses vendors and equipment manufacturers for training.
- 2.11.3 Professional Training. The City budgets for and strongly encourages employees to attend local training for collection system proficiencies.
- 2.11.4 Personnel are certified through the MWEA Voluntary Wastewater Collection System Certification Program.

2.12 Performance Measurements

- 2.12.1 The City has various performance measures that are monitored on a regular basis. These measurements are found in Table 2-4.
- 2.12.2 These performance measures are based on the following:
 - City Code
 - DNR Requirements
 - · City Goals.
- 2.12.3 Annual reviews of the performance measures are conducted to evaluate accomplishments and areas for improvement. See Section 8

 Audit Plan for more details.

Table 2-4 City of St. Peters Performance Measures

DESCRIPTION		GOALS**			
SEWERS Total Sewer Length in Feet	<20% 14%	0	185,000 ft/yr 250,000 ft/yr each		
MANHOLES (MH) Number of Manholes in System 5900 Manholes Manholes Inspected	20%		1180 per yr		
REHABILITATION/REPLACEMENT DESCRIPTION Number of Manholes repaired Number of Manholes replaced Sewers Rehabilitated (Lined, Grout, Point Repair) Sewers Replaced		TBD TBD TBD TBD	MH MH feet feet		
MAINTENANCE ACTIVITIES Root Removal Smoke Testing Dye Water Testing Flow Monitoring percent of the collection system		TBD TBD TBD TBD	feet % % %		
TRAINING					
REPORTING Number of basement backups from City sewers Number of basement backups from Private property laterals Total number of backups Number of Sanitary Sewer Overflows		0 0 0 0			
** See Recommended Annual Performance Measures in Appendix C					

Table 2-5
CMOM Program Goals, Objectives, Regulatory Expectations and Performance Measures

	Program Goals	Objectives	Regulatory Expectations	Performance Measures (PMs)
1.	Comply with NPDES permit concerning sanitary sewer overflows.	Ensure procedures are in place to identify SSOs, report SSOs to MoDNR, and mitigate impacts from the SSOs per the NPDES permit.	Untreated wastewater discharges from the system are a violation of the NPDES permit.	Number of Sanitary Sewer Overflows.
2.	Minimize the occurrence of problematic overflows.	Ensure procedures are in place including O&M practices to minimize overflows.	The MoDNR General Permit for SSOs provides specific circumstances under which the MoDNR may not take enforcement action against the discharger. These circumstances include situations where the SSO occurred to prevent loss of life, personal injury, or severe property damage.	Inspect sewers, manholes and lift stations. Rehabilitate or replace sewers and manholes. Perform maintenance activities.
3.	Maintain assets cost effectively.	Ensure preventive maintenance is performed (pump stations, manholes, and sewer pipes) Continue to conduct condition assessments on sewer assets.	State statutes require wastewater rates to include a component for equipment replacement.	Inspect sewers and manholes. Rehabilitate sewers and manholes.
4.	Provide first-class customer service	Ensure Customer Service program is meeting the City needs.	None	Customer Service Scores >90%
5.	Improve or maintain system reliability	Confirm the existence of any system component(s) that do not function according to established reliability standards.	None	Inspect sewers and manholes. Rehabilitate sewers and manholes. Perform maintenance activities.

Table 2-5
CMOM Program Goals, Objectives, Regulatory Expectations and Performance Measures

Program Goals	Objectives	Regulatory Expectations	Performance Measures (PMs)
6. Reduce the potential threat to human health from sewer overflows.	Identify potential overflows:	Overflows from the system are a violation of the NPDES permit, the Clean Water Act, and Missouri state law.	Reporting PMs. Inspect, replace and rehabilitate sewers and manholes.
Provide adequate capacity to convey peak flow.	Gain an understanding of the current system's ability to convey peak flows and what steps are necessary to address system inadequacies.	None	Perform flow monitoring as necessary. Rehabilitate and replace sewers and manholes.
8. Manage infiltration and inflow.	Understand the current level of I/I in the system, the extent to which it poses a threat to the regional or municipal system operation, sources of I/I, and potential remedial measures. Establish a program to reduce I/I in situations where I/I results in service problems, overflows and building sewer backups. Such performance standards may include those that would prevent I/I from increasing in the future.	None	Inspect sewers and manholes. Rehabilitate sewers and manholes. Perform maintenance activities.

Table 2-5
CMOM Program Goals, Objectives, Regulatory Expectations and Performance Measures

Program Goals	Objectives	Regulatory Expectations	Performance Measures (PMs)
9. Protect collection system worker health and safety.	Provide a safe working environment for all employees		Safety training
10. Operate a continuous CMOM Program.	Establish procedures for monitoring CMOM Program implementation and initiating program modifications.	Meet NPDES Permit requirements.	Update Plan Yearly. Report per Table 8-1.
11. Maintain annual cleaning and inspection programs.	Provide a continuous program to maintain the assets.	Prevent SSOs through cleaning.	Meeting cleaning and inspection PMs.
12. Continue cost- efficient operation of the sewer utility.	Adequate funding to support the initiatives.		Inspection, cleaning and rehabilitation of sewers and manholes.

SECTION 3 – OPERATION AND MAINTENANCE PLANS

3.1 Background and Information

Operation and Maintenance (O&M) Programs for the collection system are critical to properly operate and maintain the collection system and to provide recommendations for future rehabilitation and replacement projects. The City has historically inspected and cleaned sewers and manholes on a routine basis. These inspection programs are necessary to determine structural integrity, root problems, illegal connections, and I/I problems. In addition, several other programs are used on an as-needed basis to maintain the system.

The City has the following O&M Programs:

- 1. Inspection of Sewers
- 2. Inspection of Manholes
- 3. Inspection of Easements
- 4. Inspection of Critical Structures
- 5. Code Compliance
- 6. Sewer Cleaning
- 7. Smoke Testing
- 8. Dye Water Testing
- 9. Root Control
- 10. Fats, Oils and Grease Program
- 11. Sewer Lateral Repair Program
- 12. Targeted Sewer Lateral Repair Program
- 13. New Home Lateral Inspection Program
- 14. Pretreatment Program

3.2 Inspection - Sewers

- 3.2.1 The sewer inspection cycle will be performed initially on a five year cycle. City staff currently performs the inspections. The City is also investigating contracting out a portion of these inspections.
- 3.2.2 Annually, sewers are identified to be inspected. Based on the results of these inspections, the inspection cycle may be revised and future inspections could result in some areas inspected more frequently or less frequently than other areas.
- 3.2.3 Sewer inspections are done by using a closed circuit television camera (CCTV).

- 3.2.4 All sewer inspections are documented and information obtained is incorporated into the City's GIS system. A copy of the form used can be found in Appendix A.
- 3.2.5 Sewer inspections will be used for condition assessment of the sewer (See Section 6 for details). Based on the condition assessment, recommendations are made for future inspections, repairs, rehabilitation or replacement of the collection system. Where possible, these improvements are scheduled in conjunction with planned roadway or other utility improvements or upgrades.
- 3.2.6 The City currently has a Sewer Lateral Repair Program to address issues found within privately owned sewer laterals.

3.3 Inspection - Manholes

- 3.3.1 The City inspects manholes on a regular basis. Manholes are inspected on a five year cycle or approximately 20 percent per year.
- 3.3.2 Manhole inspections shall be documented. A copy of the form used can be found in Appendix A.
- 3.3.3 Manhole inspections will be used for condition assessment of the manhole. All defects shall be repaired or replaced.
- 3.3.4 Based on the condition assessment, a recommendation shall be made for future inspections, rehabilitation or replacement. (See Section 6 for Condition Assessment information.)

3.4 Inspection of Easements

- 3.4.1 The City is developing an inspection program to ensure sewers and manholes are accessible.
- 3.4.2 The City has constructed and maintains sewer access trails along sewers not accessible by City streets.

3.5 Inspection of Critical Structures

3.5.1 The City performs inspections for critical points in the system as necessary. These can and will vary upon the situation. Critical points are identified in Table 2-3.

3.6 Code Compliance

3.6.1 Properties are inspected for compliance with the ordinances and the Code. The City is committed to enforcing these ordinances.

3.7 Sewer Cleaning Program

- 3.7.1 The City currently executes a sewer cleaning program which is implemented by a combination of City staff and contract labor to maintain sewers and to prevent blockages and potential sewer backups or SSOs. A copy of the form can be found in Appendix A.
- 3.7.2 The City has identified a number of sewer segments that need ongoing maintenance due to root intrusion. The sewer segments identified as needing ongoing maintenance are inspected on an annual basis and cleaned. Other areas that may require more frequent cleaning are included in the cleaning and/or inspection schedule. These segments are then included in future rehabilitation or replacement projects.
- The City identifies additional areas to be cleaned on an annual basis. These cleanings are performed by contract labor and sites vary yearly. Based on the cleaning results, this schedule may be revised and some future cleanings may be performed more frequently or less frequently than others.

3.8 Smoke Testing Program

- 3.8.1 Smoke testing is another element that the City uses to identify sources of I/I and potential defects.
- 3.8.2 On a regular basis, this will be reviewed to determine if smoke testing is recommended.
- 3.8.3 Smoke Testing Procedure:
 - 3.8.3.1 Notify the City of St. Peters Police Department, Central County Fire and Rescue and/or the Cottleville Fire Protection District, and area residents when performing smoke testing. (See Appendix C for the letter submitted to notify residents.)
 - 3.8.3.2 This testing is not to be performed when the ground is frozen as it prevents the smoke from penetrating the soil and identifying leaks.

3.9 Dye Water Testing

- 3.9.1 Dye Water Testing is another element that the City uses to identify sources of I/I.
- 3.9.2 Dye Water will be used on an as-needed basis.
- 3.9.3 Dye Water Testing Guidelines:
 - 3.9.3.1 Notify area residents prior to doing dye water testing to let them know that the water will be colored with a non-toxic dye.
 - 3.9.3.2 This testing should not be performed when the ground is frozen as it prevents the water from penetrating the soil and identifying the leak.

3.10 Root Control

- 3.10.1 Root intrusion in collection systems is another source of blockages and overflows. Control of roots will be done in combination with routine cleaning to reduce blockages and overflow.
- 3.10.2 Root Control will be done on an as-needed basis.

3.11 Fats, Oils and Grease Program

- 3.11.1 Grease from poorly maintained grease interceptors in another source of blockages and overflows. The City administers a program to educate business owners and to monitor grease trap maintenance for food service establishments.
- 3.11.2 The City enforces maintenance and installation violations.

3.12 Sewer Lateral Repair Program

3.12.1 Privately owned service laterals that are not maintained can be another source of overflows and I/I. The City administers a program to inspect, repair or replace failing privately owned laterals. A special assessment fee of \$28/year is collected for residential property with less than 6 units per building to fund this program. Actual repair participation is voluntary and initiated by the home owner.

3.13 Targeted Sewer Lateral Repair Program

3.13.1 The City administers a voluntary program to inspect, repair or replace failing privately owned laterals. Based upon an annual review of the sanitary sewer system, home owners in designated areas, are invited to participate. This program is by invitation only and is voluntary.

3.14 New Home Lateral Inspection Program

3.14.1 New, privately owned service laterals are at times damaged during backfill operations at time of construction causing another source of overflows and I/I. The City requires all residential builders to have a CCTV inspection of the service lateral after backfill is complete in order to receive occupancy permits.

3.15 Pretreatment Program

3.15.1 The City's Pretreatment Program is incorporated into Code Chapter 715.

SECTION 4 - CAPACITY PLAN

4.1 Background and Information

The City is required to have sufficient capacity during dry weather events and to manage peak wet weather flows. This includes identifying areas during wet weather events where excess flow from I/I occurs.

4.2 Capacity

- 4.2.1 Dry Weather Conditions. The City has no dry weather capacity restrictions.
- 4.2.2 Wet Weather Conditions. The City will continue to monitor flows during wet weather events to reduce I/I. Problems during wet weather events and SSOs are analyzed to determine the cause.
- 4.2.3 The City has an on-going inspection program to identify I/I.
- 4.2.4 The City is enforcing their ordinances on a continuous basis to ensure that I/I is reduced.

4.3 Field Investigation

- 4.3.1 The City performs field investigations on a regular basis to identify I/I, defects and other potential problems. All problems are based on: customer service requests, staff recommendations or as needed.
- 4.3.2 Problem areas and overflows are investigated. Overflows are reported See Section 5 Overflow Response Plan for details.
- 4.3.3 Observations and recommendations from these field investigations are used to enhance the O&M programs and to provide repair, rehabilitation and replacement recommendations.

4.4 Flow Monitoring

4.4.1 The City will use flow monitors to evaluate flow, capacity constraints, and to identify I/I areas in the system on a case-by-case basis.

4.5 I/I Reduction

4.5.1 City Code requires property owners to maintain their service connection or lateral.

- 4.5.2 The City will continue to enforce downspout disconnections as identified.
- 4.5.3 The City will continue to review alternative programs to eliminate clear water in the sanitary sewer system.
- 4.5.4 Rehabilitation and replacement programs are based on reducing I/I and SSOs in addition to ensuring that the structural integrity of City owned assets are maintained.
- 4.5.5 Projects are included in the City's Capital Improvement Plan for planning and financing purposes.

SECTION 5 – OVERFLOW RESPONSE PLAN

5.1 Background and Information

An Overflow Response Plan (ORP) is to document a standardized course of action that the City will follow in the event of a sanitary sewer overflow event. An ORP is necessary to ensure that the effects of an overflow are minimized in regards to public health and water quality.

The objectives of the ORP are to:

- Protect the public and the environment.
- Reduce sewer system overflows
- Satisfy regulatory agencies and discharge permit conditions
- Improve the quality of customer service
- Minimize the risk of enforcement actions against the City

5.2 Procedures for Receipt of Information Regarding a SSO

SSOs may be detected by City employees or by others. The City will provide immediate response to investigate any calls or reports of a potential SSO. Calls are routed to the Citizens Action Center to be entered as a concern. The Foreman or on-call person (after hours) will be contacted to address the problem. The following information will be collected:

- Time and date call was received
- Caller's name and telephone number
- Specific location of the problem
- Description of the problem and observations

1.3 Dispatch Procedures

Upon receipt of a notification that there could be an overflow, an employee will be dispatched to investigate the problem. This person shall:

- Investigate and confirm if there is a SSO
- Determine the cause of the overflow, high flows, sewer line blockage, break, etc.
- Identify and request, if necessary, assistance or additional resources to correct the overflow or to assist in the determination of its cause
- Correct the overflow by determined means necessary
- Estimate quantities of flow for the overflow
- Document SSO on Sanitary Sewer Backup Overflow Report (See Appendix A)

The Foreman shall report all overflows to the Missouri Department of Natural Resources (DNR) electronically (See Notification and Documentation below). Report shall include start and stop time, estimated flow and location.

The overflow report shall be completed and kept in departmental records.

1.4 Overflow, Mitigation, Containment and Cleanup Procedures

- 5.4.1 Identify the destination of the overflow (storm sewer, street, etc.)
- 1.4.2 Secure the area to prevent contact by members of public until the SSO has been addressed and cleaned up.
- 1.4.3 Take immediate steps to stop or minimize the impact of the SSO:
 - a. Relieve City sewer blockage by cleaning the sewer
 - b. Install portable pump at the manhole and pump to another sewer manhole if possible.
- 1.4.4 Request additional personnel, materials, supplies or equipment that will expedite and minimize the impact of the overflow.
- 1.4.5 Cleanup of the overflow shall be completed as soon as possible.
 - a. Secure the site route traffic around if necessary
 - b. Where practical, thoroughly flush the area with clean water. Solids and debris may be flushed, swept, picked up, returned to the sewer or transported for proper disposal. Liquids may be discharged to the sanitary sewer.

5.5 Notification and Documentation

In the event of an overflow, the City needs to submit notification to various stakeholders. See emergency contact list in the ORP. These are as follows:

- 1. Notify Manager of Water Environment Services
- 2. Notify Director of Utilities
- 3. Email notification, within 24 hours, to DNR e-Reporting website (http://dnr.mo.gov/mosso) that an overflow occurred.
- 4. Written overflow report to DNR within five (5) days. The form can be found on the DNR website and is included in Appendix A. The written report shall include the following:
 - Reason the overflow occurred, or explanation of other contributing circumstances that resulted in the overflow event. Whether the overflow is associated with wet or dry weather.
 - Date the overflow occurred.
 - Location where overflow occurred.

- Duration of the overflow and estimated wastewater volume discharged.
- Corrective action taken to prevent similar future occurrences.
- Receiving water for overflow.
- Any other information the permittee believes is relevant
- 5. Notify City of St. Peters Purchasing Department (property damage claims).

5.6 Weather Forecast

The City also uses weather forecasting of wet weather to assist in predicting high flows and potential problems in the collection system.

5.7 Cause Failure Analysis

- 5.7.1 All overflows are investigated to determine what caused the overflow.
- 5.7.2 Other problems in the system, such as blockages or basement backups, are also investigated to determine the cause.
- 5.7.3 See Sanitary Sewer Back-up Follow-up Investigation Report in Appendix A.

SECTION 6 - CONDITION ASSESSMENT

6.1 Background and Information

A Condition Assessment Program involves documentation and inspection of the collection system to assess the condition of the infrastructure. The information gathered during the assessment is used to plan and budget for repair, rehabilitation and replacement of the assets. Recommendations for additional inspection and cleaning are made from these assessments. Listed below are several key elements that are part of the Conditional Assessment Program.

6.2 Conditional Assessment Key Elements

- 6.2.1 The tools listed in Section 3 Operation and Maintenance Plans will be used for condition assessment. See Section 3 for more details. These tools include, but are not limited to, inspection, cleaning, smoke testing, and dye water testing.
- 1.2.2 Document inspections of sewers and manholes.
- 1.2.3 Data from the inspections is reviewed and evaluated by an experienced person. Sewer inspections are currently performed by the City.
- 1.2.4 Based on the condition assessment rating, recommendations are made on an on-going basis to repair, rehabilitate, and/or replace to properly maintain the assets.
- 1.2.5 System performance, maintenance history, age, material construction and structural risk analysis will also used to prioritize recommendations.

6.3 Condition Assessment Recommendations

- 6.3.1 Recommendations to repair, rehabilitate, or replace the assets are based on the results of the condition assessment.
- 6.3.2 Depending upon the severity of the condition, the City may repair using City staff or may contract for the repairs.
- 6.3.3 Solutions for repair or rehabilitation will depend upon the condition of the asset. The effectiveness of I/I reduction and prevention of SSOs will be determined. A determination will be made regarding the appropriate use of technology for the issue.

6.3.4 Recommendations will be used for O&M budgets and CIP.

SECTION 7 – COMMUNICATION PLAN

7.1 Background and Information

The City of St. Peters communicates with DNR, the City Board of Aldermen (BOA) and their customers on a regular basis. The City is governed by a Mayor and 8 Ward Aldermen as outlined in the City Organization Chart in Figure 2-1.

7.2 Methods of Communication

The City of St. Peters Board of Aldermen meet on a twice monthly basis 8 months of the year and on a once monthly basis the other 4 months to determine policy issues related to finance, personnel, operations, and other City business.

Currently, the City utilizes its web-site www.stpetersmo.net, SPTV, and the UpFront and My Hometown magazines to update residents on matters related to the sewer collection system.

7.3 CMOM Communication

CMOM-related topics identified for future and/or continued discussion include:

- 1. Financial impact to the City. (Adequate budget to support initiatives including, but not limited to: capital improvements, operation and maintenance activities, personnel and equipment.)
- 2. Problem areas in the system.
- 3. Sanitary Sewer Overflows.
- 4. Communication to residents.
- 5. Meeting the CMOM goals.
- 6. Cost effective reduction of I/I.

7.4 Reporting Methods

As part of the Communications Plan, the City has reporting requirements to other entities as listed in Table 8-1 and as outlined in the Overflow Response Plan (See Section 5) In addition, an I/I report as required by DNR will be submitted annually by December 1.

7.5 Reference

- 7.5.1 Table 8-1 Audit and Reporting Schedule
- 7.5.2 See Section 5 Overflow Response Plan

SECTION 8 – CMOM AUDIT

8.1 Background and Information

A CMOM audit is necessary to ensure that the CMOM Plan is properly implemented, goals and objectives are met, and performances measures are reviewed, evaluated, and updated on a regular basis.

The CMOM Plan provides the framework and documentation to implement the programs that the City currently has in place. The CMOM Plan is meant to be a working document and will be updated as needed.

As part of the Audit the following will be done:

- 1. Audit and review the CMOM Plan
- 2. Monitor the Plan
- 3. Provide recommendations
- 4. Update the CMOM Plan

8.2 Audit and Review the Plan

- 8.2.1 Audits shall be done every five years beginning in 2018. See Table 8-1 for reporting requirements.
- 8.2.2 Review the Plan for the following:
 - 8.2.2.1 Goals are applicable to the City.
 - 8.2.2.2 Goals and strategies are applicable and meet DNR and City requirements.
 - 8.2.2.3 Program elements are applicable and relevant
 - 8.2.2.4 Performance measures are being met. See Table 2-4 for performance measures.
 - 8.2.2.5 Budget is adequate to meet the recommendations from the various CMOM components.

8.3 Monitor the Plan

8.3.1 Monitor the implementation and measure the effectiveness of program through performance measures.

- 8.3.2 Annually, review goals and performance measures to measure the program effectiveness.
- 8.3.3 Submit reports as required by DNR.

8.4 Provide Recommendations

- 8.4.1 Provide recommendations to revise the performance measures.
- 8.4.2 Provide recommendation to revise and update the Plan.

8.5 Update the CMOM Plan

- 8.5.1 Update the CMOM Plan based on the audit, feedback from employees and recommendations.
- The audit and the CMOM Plan update will be documented as shown in Tables 8-2, 8-3 and 8-4.

EXHIBIT 8-1 AUDIT & REPORTING SCHEDULE							
DESCRIPTION 2012 2013 2014 2015							
AUDIT							
Develop goals and performance measures	Х	Х	Х	Х	Х		
Review actual goals and performance measures	X	Х	X	X	Х		
Review and update budget and rates	X	Х	Х	Х	Х		
CMOM Audit					X		
REPORTING SCHEDULE							
City – I/I Report December 1st	X	X	Х	X	Х		
Clean water funding reporting requirements as necessary							
Sanitary Sewer Overflow Notification – See Overflow Response Plan in Section 5							

AUDIT PLAN

EXHIBIT 8-2 CMOM Plan Update Documentation Table

Update No.	Update Manual No. 1	Update Manual No. 3	Update Manual No. 6	Update Manual No. 7	Update Manual Nos. 2, 4, 5 & 8 (Electronic)	Comments
Initial	1-18-2013	1-18-2013	1-18-2013	1-18-2013	1-18-2013	

AUDIT PLAN

EXHIBIT 8-3 Audit and Plan Update Documentation Table

Audit Date	CMOM Plan Updated By:	Plan Updated Date	Approved By:	Date Approved	Update Number
			-		
	Audit Date	Audit Date CMOM Plan Updated By:	Audit Date CMOM Plan Updated By: Plan Updated Date Plan Updated Date	Audit Date CMOM Plan Updated By: Plan Updated Date Approved By:	Audit Date CMOM Plan Updated By: Plan Updated Date Approved By: Date Approved Approved By: Date Approved

AUDIT PLAN

Table 8-4 CMOM Plan Distribution List						
MANUAL NO.	NAME	ENTITY	VERSION			
1	BOA/Admin Library	City of St. Peters	Paper			
2	Bill Malach Manager, WES	City of St. Peters	Electronic			
3	Tim Myers Director of Utilities	City of St. Peters	Paper			
4	Beth French Director of Finance	City of St. Peters-	Electronic			
5	Rob Hamlin Plant Operations Foreman	City of St. Peters	Electronic			
6	Gary Sever Plant Maintenance Foreman	City of St. Peters	Paper			
7	Lisa Johnson Field Operations Foreman (Sanitary)	City of St. Peters	Paper			
8	Mary Spinner WES Administrative Coordinator	City of St. Peters	Electronic			

APPENDIX A

LIST OF FORMS

- 1. Initial Inspection Field Form Manhole Information
- 2. Grease Interceptor Inspection Report
- 3. Smoke Test Form
- 4. Sanitary Sewer Back-Up Overflow Report
- Report of Sanitary Sewer Overflow (SSO) or Wastewater Treatment Plant Bypass (DNR)
- 6. Work Order/Complaint Log
- 7. Sanitary Sewer Back-Up Follow-Up Investigation Report
- 8. Sample Concern Report

		M	ANHOLE INFORMA	TION	
MH NUMBER: MAP SECTION:(1,2,3,or 4)		GRADE ADJ.: brick grout precast	MANHOLE TYPE: brick cast- in-place precast	PAVED SEALED or BOLTED	MANHOLE LOCATION:
H DIAMETER:		ACCESSIBILITY: not found obstructed unobstructed	LID TYPE: bullseye pickslot traffic model other	☐ DROP MANHOLE ☐ EVIDENCE OF SURCE	HARGE
FRAME COND.: excellent good fair poor n/a	excellent good fair poor n/a	WALL COND.: excellent good fair poor n/a	GRADE ADJ, RING: excellent good fair poor n/a	SURCHARGE: none .5 1ft. 2ft. 3ft.	good broken ARRIVAL TIME: DEPARTURE TIME:
WALL SEAL COND.: excellent good fair poor n/a	excellent good fair poor n/a	PIPE SEAL COND.: excellent good fair poor n/a	DRAINAGE COND.: excellent good fair poor n/a	ROOTS: none light medium heavy severe	INFILTRATION: all frame seal pipe seal wall seal frame and pipe frame and wall
MANHOLE COMMENTS:				<u>' </u>	pipe and wall grade adjustment none
S. W. Swa			LET PIPE INFORMA		IAN ET BIDE
OUTLET P PIPE NUMBER: PIPE SIZE; PIPE DEPTH:	PIPE	PIPE NUMBER: PIPE SIZE: PIPE DEPTH:	PIPE NU PIPE SIZ PIPE DE	ZE:	PIPE NUMBER; PIPE SIZE: PIPE DEPTH:
DOWNSTREAM MANHOLES		UPSTREAM MANHOLE: UPSTREAM PIPE DEPTH:		EAM MANHOLE:	UPSTREAM MANHOLE: UPSTREAM PIPE DEPTH:



City of St. Peters Grease Interceptor Inspection Report

Date				Initials:
		17		
Facility Name:		Equipment (indica	ate how many on site):	
Address:		Deep Fryers:	3-bay sin	ks:
General Mgr:	7	Ovens:	2-bay sin	ks:
Phone:	Bus. Lic#:	Grills:	1-bay sin	ks:
		Brollers:	Dishwasi	ners:
Mailing Address/Headquarters	_	Garbage grinders	: Mop sink	s:
Name:		Other:		
Attn:				V/N
Address:			nnected to Interceptor?:	Y/N
City St Zip:			ed to handle flow?:	Y/N
100	the state of the state of		hoods, filters, grills, floor	mats cleaned?;
		in sink 3rd-party servi	ce N/A	
Interceptor installed?: Y/N Date o	f last cleaning:	Frequency of clea	-	
Location of interceptor:			30 days 60 days 90 day	s 120 days 180 days
1. Frequency of cleaning:	- 4	Water temperatur		The state of the s
7 days 14 days 30 days 60 days 90	days 120 days 180 days		7.7.1	
2. Log of cleaning schedule is being ke	교실하게 다른 소개에 되다라면 하다.	BMP training pro		N
3. On visual inspection, is the unit clea		Training type:		Written
4. Is the interceptor in proper working				N
		Dishware "dry	wiped"?: Y	N
Company used for Interceptor mai	intenance	618		~
Company Name:	0-		30 1000-00	
Address:		Used grease rece	mtacia?	Y/N
City, State Zip:		Oscu grease rece	Lid closed?:	Y/N
Phone:	_		Does receptacle leak?:	Y/N
5. Are additives used in interceptor or	floor drains?: Y/N		Area maintained?:	Y/N
Product Name:			Area metitameur.	
Distributor Name:				
Address:				
City, State Zip:				
Issues to address:				
			1000	
	-			1
Inspector:			Date:	

UTILITIES DEPARTMENT SMOKE TEST FORM

Upstream MH:		Down Stream MH:	Pipe Number:	
Address:	Street			
Results:	Sector:	Source Type:	Location:	
Negative	City	City Main	Front	
Positive	Private	Driveway Drain Window Well Drain	Side	
Cannot Test		Stairwell Drain	Back Front BOW	
			Front ROW	
		Area Drain Down Spout	Street Intersection	
		Foundation Drain	Parking Lot	
		Building Inside	Alley	
			Aney	
		Catch Basin Storm Ditch	Photos Taken: Yes No	
		Storm Manhole	If Yes, How Many:	
		Main Sewer	ii res, riow many.	-1
		Cleanout		
		Frame Seal		
		Other		
Sketch:				
Sketch:				1
Sketch:				Î
Sketch:				

<u>CITY OF ST. PETERS - UTILITY DEPARTMENT</u> <u>SANITARY SEWER BACK-UP OVERFLOW REPORT</u>

DATE: TIM	E CITY NOTIFIED:
TIME ARRIVED ON JOB:	LEFT JOB SITE :
RESIDENT'S NAME:	
ADDDRESS:	
PHONE #:	SUBDIVISION:
CHECKED MANHOLE #'s	
WAS BACK-UP IN <u>CITY</u> MAIN	? YES NO
WERE MANHOLES OVERFLO	WING? M.H.#
WET WEATHER OVERFLOW?	YES NO
BLOCKAGE WAS BETWEEN	M.H.# & M.H.
DID CITY VIEW DAMAGE TO	PROPERTY? YESNO PICTURES TAKEN? □
APPARENT CAUSE OF BLOCK	KAGE
CORRECTIVE ACTION TAKES	N TO RELIEVE BLOCKAGE:
CLEAN-UP ACTION TAKEN:	
NOTE: ALWAYS ADVISE RESIDA	ENT TO CALL CAC AS SOON AS POSSIBLE TO FILE A CONCERN!!
RESPONDING EMPLOYEE'S SIGI	NATURE:
SUPERVISOR'S/FOREMAN'S SIC	GNATURE
CC: Risk Manager/ CAC/ File / DNI	3

REPORT OF SANITARY SEWER OVERFLOW (SSO) OR WASTEWATER TREATMENT PLANT BYPASS

	DISTRICT & PLANT):	PERMIT NUMBER:
COUNTY:	PHONE NUMBE	R:
r - Anne All State of the State		
	Salte Williams	
 a. Street Address/Landmark/C b. Complaint Name & Telepho 		
c. Start Date & Time		Date & Time:
d. Total Time:		me (Gallons):
e. Categories of SSO	1.100	
□Vandalism	☐Power Outage	☐Broken Sewer
☐Inflow & Infiltration	☐Plugged Sewer	☐Equipment Failure
Rain Inches	Manhole location #	☐Widespread Flooding
Other_		
f. Categories of STP Bypass		
☐Head Works	☐Aeration/Biological Treatment	□Digester
Primary Basins	Clarifiers	☐Solids Handling/Drying Beds
Other		
Type of Samples Taken:	BOD TSS Fecal Ammonia	
Type of Samples Taken:	BOD □TSS □ Fecal □ Ammonia	DO Other
Type of Samples Taken:	BOD □TSS □ Fecal □ Ammonia	DO Other
Type of Samples Taken: a. Name of Receiving Stream: b. Discharge Course	BOD □TSS □ Fecal □ Ammonia	DO Other
Type of Samples Taken: a. Name of Receiving Stream: b. Discharge Course Runs on ground and abs	BOD TSS Fecal Ammonia	DO Other
a. Name of Receiving Stream: b. Discharge Course Runs on ground and abs	BOD TSS Fecal Ammonia	Length Affected:
a. Name of Receiving Stream: b. Discharge Course Runs on ground and abs Ditch. Name of surface w	BOD TSS Fecal Ammonia	Length Affected:
Type of Samples Taken: a. Name of Receiving Stream: b. Discharge Course Runs on ground and abs Ditch. Name of surface w Storm sewer. Name of s Surface water direct disc	BOD TSS Fecal Ammonia	Length Affected:
Type of Samples Taken: a. Name of Receiving Stream: b. Discharge Course Runs on ground and abs Ditch. Name of surface w Storm sewer. Name of s Surface water direct disc	BOD TSS Fecal Ammonia	Length Affected:
Type of Samples Taken: a. Name of Receiving Stream: b. Discharge Course Runs on ground and abs Ditch. Name of surface was surface water direct disc Other, describe:	BOD TSS Fecal Ammonia sorbs into the soil. vater it drains to: urface water it drains to: charge:	Length Affected:
a. Name of Receiving Stream: b. Discharge Course Runs on ground and abs Ditch. Name of surface was a Surface water direct disc Other, describe: a. Flushing Remove	BOD TSS Fecal Ammonia sorbs into the soil. vater it drains to: urface water it drains to: charge: Chemical Application	Length Affected:
Type of Samples Taken: a. Name of Receiving Stream: b. Discharge Course Runs on ground and abs Ditch. Name of surface was Storm sewer. Name of surface water direct discussion of the Course of Surface water direct discussion. Other, describe:	BOD TSS Fecal Ammonia sorbs into the soil. vater it drains to: urface water it drains to: charge:	Length Affected:
a. Name of Receiving Stream: b. Discharge Course Runs on ground and abs Ditch. Name of surface was a Surface water direct disc Other, describe: a. Flushing Remove	BOD TSS Fecal Ammonia sorbs into the soil. vater it drains to: urface water it drains to: charge: Chemical Application	Length Affected:
a. Name of Receiving Stream: b. Discharge Course Runs on ground and abs Ditch. Name of surface was a Surface water direct disc Other, describe: a. Flushing Removi	BOD TSS Fecal Ammonia sorbs into the soil. vater it drains to: urface water it drains to: charge: Chemical Application	Length Affected:
Type of Samples Taken: a. Name of Receiving Stream: b. Discharge Course Runs on ground and abs Ditch. Name of surface was a Surface water direct disc Other, describe: a. Flushing Removi	BOD TSS Fecal Ammonia sorbs into the soil. vater it drains to: urface water it drains to: charge: Chemical Application	Length Affected:
a. Name of Receiving Stream: b. Discharge Course Runs on ground and abs Ditch. Name of surface v Storm sewer. Name of s Surface water direct disc Other, describe: a. Flushing Removib. Describe detailed actions ta	BOD TSS Fecal Ammonia sorbs into the soil. water it drains to: urface water it drains to: charge: Chemical Application ken to correct & clean up the SSO/Bypas	Length Affected:
a. Name of Receiving Stream: b. Discharge Course Runs on ground and abs Ditch. Name of surface w Storm sewer. Name of si Surface water direct disc Other, describe: a. Flushing Removib. Describe detailed actions ta	BOD TSS Fecal Ammonia sorbs into the soil. water it drains to: urface water it drains to: charge: Chemical Application ken to correct & clean up the SSO/Bypas	Length Affected:
a. Name of Receiving Stream: b. Discharge Course Runs on ground and abs Ditch. Name of surface of Storm sewer. Name of significate water direct discipled of the Course of Surface water direct discipled of Storm Storm Sewer. Name of signification of Storm Sewer. Name of significant sewer. Name of Storm Sewer. Name of Sewer. Name	BOD TSS Fecal Ammonia sorbs into the soil. vater it drains to: urface water it drains to: charge: Chemical Application ken to correct & clean up the SSO/Bypas	Length Affected: Other:ss and any follow up actions:
a. Name of Receiving Stream: b. Discharge Course Runs on ground and abs Ditch. Name of surface w Storm sewer. Name of s: Surface water direct disc Other, describe: a. Flushing Removib. Describe detailed actions ta	BOD TSS Fecal Ammonia sorbs into the soil. water it drains to: urface water it drains to: charge: Chemical Application ken to correct & clean up the SSO/Bypas	Length Affected: Other

NOTE: Any SSO, bypass or shutdown of a wastewater treatment facility and/or tributary sewer system, is prohibited unless necessary to prevent loss of life, personal injury or property damages. The Continuing Authority is required to notify the Department of Natural Resources by TELEPHONE or FAX by the next business day of any SSO or bypass, and to follow with a written report within 5 business days.

CITY OF ST. PETERS UTILITY DEPARTMENT WORK ORDER/COMPLAINT LOG

DATE:	TIME	·		_
CONCERN#:	_			
NAME:	_	TELELPHONE#		
ADDRESS:				-
SUBDIVISION:				_
PERSONNEL ASSIGNED:				
RESIDENTS REQUIRED TO BE NOTIFIED? Y	N	LOCATES REQUIRED?	Y	N
CONCERN DETAILS:				
,				
SIGNATURE:				_
BRIEF DESCRIPTION OF WORK PERFORMED:				
				_
DATE/TIME CONCERN WAS COMPLETED:				
CONCERN STATUS:				
SIGNATURE:				

CITY OF ST. PETERS UTILITIES DEPARTMENT SANITARY SEWER BACK-UP FOLLOW-UP INVESTIGATION REPORT

DATE OF INITIAL BACKUP:	DATE OF INVESTIGATION:
RESIDENT OF GOVERNMENTAL CONCE	ERN CONCERN#
RESIDENT'S NAME:	
ADDDRESS:	
PHONE #: SUB	DIVISION:
APPARENT BLOCKAGE WAS BETWEEN M.H. #	AND M.H. #
CORRECTIVE ACTION TAKEN TO REMO	OVE APPARENT OBSTRUCTION:
INVESTIGATING EMPLOYEE'S SIGNATURE	
UTILITY SUPERVISORS/FOREMAN'S SIGNA	TURE:
COPIES:	
FILE	RISK MANAGER

CITY OF ST. PETERS, MO

RESIDENT CONCERN

Department: 515

CONCERN# 41042

DATE: 1/6/2009 11:13:00 AM

Type: 51515 SEWER LATERAL/UTL

WES-UTILITIES

Status: 80

WORK COMPLETED (FINAL)

208 Employee:

JOHNSON

RESIDENT:

JOANN POHL

ADDRESS:

20 OX BOW ROAD

SUBDIVISION/WARD: COUNTRY HILL ESTATES 1

HOME PHONE:

636.397.3728

WORK PHONE:

e-MAIL:

LOCATION:

20 OX BOW ROAD

CAC REMARKS: CLLD AND LEFT MESSAGE FOR NANCY

72 HOUR RESPONSE BY: 1/12/2009

SEWER LATERAL/UTL

EMB

1/6/2009 11:13:00 AM

RESIDENT'S STATEMENT OF DETAILS:

====== Added by ebriggs on Tuesday, January 06, 2009 11:18:02

MS. POHL BELIEVES SHE HAS A "COLLAPSED LINE" IN HER HOME OR ON HER PROPERTY BECAUSE HER SINKS AND TOILETS ARE BACKING UP. SHE HAD A PRIVATE CONTRACTOR OUT AND HE STATED THAT HE WAS ONLY ABLE TO GO 20 FEET INTO THE LINE BEFORE HE RAN INTO DIRT AND MUD. SHE WOULD LIKE SOMEONE FROM THE CITY TO CONTACT HER AT THEIR EARLIEST CONVENIENCE.

DEPARTMENTAL RESPONSE:

----- Added by nmutchler on Wednesday, January 07, 2009 11:47:17

1-6-09 SR/PR, CHECKED SANITARY MAIN AND FLOW WAS NORMAL. RESIDENT HAD PLUMBER OUT AND PLUMBER HIT MUD (PER RESIDENT) 30 FEET IN LATERAL. REFERRED RESIDENT TO LATERAL INSURANCE PROGRAM AND TO CONTACT LISA SIMS @ EXT. 278. FOLLOW UP COMPLETE. FINAL. PERRY REID. 1-7-09 TRANSFER TO LISA SIM FOR SEWER LATERAL PROGRAM. NANCY MUTCHLER.

====== Added by Isims on Wednesday, January 07, 2009 12:47:26

1-7-09 RESIDENT CONTACTED THIS OFFICE AND SIGNED UP FOR THE SEWER LATERAL PROGRAM. FINAL, LISA SIMS

CITIZEN ACTION CENTER:

APPENDIX B

STANDARD PROCEDURES/CITY POLICIES

- 1. Sanitary Sewer Maintenance Procedures
- 2. Grease Trap Cleaning Procedures
- 3. Sewer Backup Reporting Procedures
- 4. Sanitary Sewer Inspection Procedures
- 5. Vac Truck Storm/Sanitary Flushing Procedures
- 6. Sanitary Sewer Repair Procedures
- Administrative Policy No. ADM-16 Utility Settlement Under Private Driveways
- 8. Administrative Policy No. ADM-20 Sanitary Sewer Backup Concerns
- 9. Administrative Policy No. ADM-34 Sewer Lateral Repair Program

SANITARY SEWER MAINTENANCE PROCEDURES

Subject: Maintenance Procedures

Purpose: To determine conditions of main lines and determine needed maintenance or

repairs.

Scope: This policy is applicable to WES Utility Work Unit.

Procedure:

General

Test equipment for readiness including confined space equipment.

- Consult Utility Atlas as needed.
- If manhole entry is not required, only two persons are needed to perform work. If manhole entry is required, then three persons are required to perform work.
- Each manhole is to have the manhole inspection form (electronic or paper) filled out during all work.
- All maintenance activities of main lines are to be from manhole to manhole.
- Accurate footage marks are to be noted.
- All paper maintenance forms are to have their data entered into the data base within a reasonable time frame.

2. Flushing

- Cleaning or flushing of main sewer lines to be done according to the schedule.
- Cleaning is to be done with the Hydroflush unit.
- The Hydroflush unit is to be operated in accordance with the manufacturer's recommendations.
- All cleaning is to be done against the flow (from downstream manhole to upstream manhole). This allows for material to be moved downstream with the flow.
- A typical cleaning can be accomplished with one pass up and down the line to ensure sewer is clean.
- Use the debris catcher during the cleaning operation.

3. Root Cutting

- Root cutting is to be done according to the schedule.
- The root cutting operation is to be done with the Hydroflush unit according to the manufacturer's recommendations.

- A T.V. inspection of the main line shall be completed prior to the root cutting operation if possible.
- The root cutting is to be done against the flow (from the downstream manhole to the upstream manhole.) This allows for the roots that are removed to be moved downstream with the flow.
- . The root cutter is not to be used as a saw for cutting laterals.
- All root cutting operations are to be done with the debris catcher in the downstream manhole.
- A typical root cutting operation can be accomplished in one pass up and down the line.
- A T.V. re-inspection of the main line shall be completed after the root cutting operation is completed.

4. Chemical Treatments

 Chemical treatments are to be done in accordance with the manufacturer's recommendations.

GREASE TRAP CLEANING PROCEDURES

- Pump out any water in the trap or interceptor to facilitate cleaning. The water should <u>NOT</u> be discharged back into the sanitary sewer system. It must be taken to a licensed disposal facility.
- 2. Remove baffles if possible. Scrape if possible.
- Pump the accumulated grease out of the interceptor with a certified and licensed special waste hauler.
- 4. Scrape the sides, the lid, and the baffles with a putty knife to remove as much of the grease as possible for an inside grease trap. If you have an outside trap or interceptor follow the same procedures but use a power washer instead of a scraper.
- Replace the baffles and the lid. Seal the grease trap with 100% silicone caulk if needed to prevent odor from escaping.
- Record the volume of grease removed on the maintenance log. Along with tracking numbers for the waste haulers manifest.

SEWER BACKUP REPORTING PROCEDURES

Subject: Backup Reports

Purpose: To report in a timely manner to better serve the public.

Procedure: 1. Daytime reporting (7:00 a.m. to 5:00 p.m.)

 All sanitary sewer backups must be entered into the concern system by CAC. If resident contacts the Utilities department Directly, the Office Specialist will enter the information into the concern system.

- · CAC creates concern and sends to Utilities and Purchasing
- Utilities Sanitary Sewer Backup Report shall be completed in addition to the concern. If backup is City main related forward Backup report along with any photos taken to Purchasing.
- A follow up investigation shall be performed within 72 hours. Backup report shall be forwarded to Purchasing if backup is City main related.
- Foreman will report any SSOs to DNR via their website

2. After Hours/Holidays reporting

- Utilities Sanitary Sewer Backup Report shall be completed. If backup is City main related forward Backup report along with any photos taken to Purchasing.
- Field crew will provide the Office Specialist with the backup report.
 The Office Specialist will enter the information into the concern system.
- A follow up investigation shall be performed within 72 hours. Backup report shall be forwarded to Purchasing if backup is City main related.
- · Foreman will report any SSOs to DNR via their website.

SANITARY SEWER INSPECTION PROCEDURES

A. Subject: Inspection

B. Purpose:

- To investigate sanitary sewer backups to determine causes or conditions of main line that could have contributed to backup
- To determine conditions of main lines and determine needed maintenance or repairs.
- C. Scope: This policy is applicable to WES Utility Work Unit.

D. Procedure:

- Test T.V. equipment for readiness and test confined space equipment for readiness.
- · Consult Utility Atlas as needed.
- If manhole entry is not required, only two persons are needed to inspect sewer lines. If manhole entry is required, then three persons are required to inspect line.
- Each manhole is to have the manhole inspection form (electronic or paper copy) filled out during all inspection work.
- T.V. inspections of main sewer lines shall be done for all reported backups within 72 hours after backup.
- T.V. inspections of main sewer lines as part of routine inspections shall be performed according to the schedule.
- T.V. inspections are to be done downstream with the flow and prior to any maintenance activity if at all possible.
- All inspections of main lines are to be from manhole to manhole.
- Accurate footage marks are to be recorded. The footage recorded shall be the actual length of the pipe from outside of manhole to outside of manhole.
- An electronic inspection form must be filled out on all inspections.
- A video tape or digital picture is not required of main lines that have no defects.
- Do not describe each part of the main lines that have "no" problems.
- Creation of a DVD of the entire length of main lines is only for the purposes of assessing repairs and will only be done with a supervisor's authorization. DVD shall be marked with the pipe segment recorded.
- Digital pictures of failing lateral connections, or lateral problems or single point failure problems of the main line are required.
- Identify "all" laterals and their condition. Do not take a picture of a good lateral.
- Fill in "all" fields in the data base from the selections available. New selections shall not be created.

VAC TRUCK STORM/SANITARY FLUSHING PROCEDURES

Subject: Storm/Sanitary Flushing Procedure

Purpose: To maintain and restore flow and remove debris

Procedure:

Complete walk around inspection of truck (per CDL inspector procedure.)

B. Fill water tanks.

- · Park truck near fire hydrant within reach of fill hose.
- · Connect fill hose to hydrant.
- Position valving for bypass and turn on hydrant. Flush hydrant until no signs of calcium are noticeable.
- Slowly change valving to fill allowing truck to fill while monitoring fill gauges.
- When truck is full, change valving to bypass the slowly turn off hydrant.
- . Disconnect drain and roll up fill hose and replace in holder.
- · Replace cap on hydrant.
- Recirculating (cold weather operations under 32 degrees f.).
 - Verify water tanks are full.
 - · Disconnect leader hose and attach to fitting on bumper.
 - Place ball valve on hose reel in "on" position.
 - Push in hydraulic selector valve.
 - Verify cap is on hand gun attachment port.
 - · Place hand gun ball valve in "on" position.
 - Turn on mode/PTO button.
 - Turn on rodder pump switch.
 - Verify water is circulating.
 - After reaching job site, reverse procedures for operation.
 - . Drain air tanks regularly to prevent freeze up.

D. Flushing/Root Cutting

- Locate downstream and upstream manhole (use Utility Atlas).
- Open and secure upstream manhole by employee monitoring or cage to prevent blowback in residents lateral.
- Place Vac Truck as close to downstream manhole as possible.
- Verify all controls are in correct position.

- · Lower hose into manhole against flow.
- Turn on rodder just until nozzle or saw enters upstream pipe.
- Lower bumble bee in place to protect hose.
- Place cage in trough toward downstream outlet.
- Set reel on manhole frame threading the hose through. Secure ropes to cage and bumble bee to prevent movement.
- · Place manhole cover on reel to prevent movement of reel.
- Turn on rodder. Set RPM's using throttle toggle switch to normal operating pressure.
- Use hose reel to feed hose until it reaches upstream manhole.
- Turn down RPM's to idle and place hose in hose guide. Return to normal operating pressure.
- Begin to slowly reel hose back until just above the downstream manhole.
- · Remove equipment from manhole.

E. Vacuum Procedures

- Turn on mode/PTO button.
- · Connect pendant to reel.
- Hold in starter bypass button while turning key until engine starts.
 Do not hold on for more than 15 seconds at a time. Release starter button.
- · Check above clearance; i.e., electrical line.
- Release clamp securing vacuum hose to truck.
- · Raise and extend boom over manhole.
- Lower boom and attach proper amount of pipe sections with clamps to reach bottom of manhole.
- Position bottom section of pipe one inch above material to be vacuumed. Do not submerge end of pipe.
- Turn vacuum switch on to remove debris.
- If suction gives, tank is full.
- Reverse procedures when complete.

F. Decanting

- Position truck so that blue hose reaches manhole. Turn on PTO button.
- Unroll blue decant hose and place in manhole.
- Open valve on back of truck to release flow.
- As flow slows, use hoist control valve to raise bed of truck.
- When all liquid material has been removed, lower body. Close valve and roll hose up and secure.

G. Dumping

- Make sure area is level and compacted. Turn on PTO button.
- · Raise truck bed using the hoist control valve.
- Release back locks by lever.
- · Attach hand gun to quick disconnect on hose.
- Remove cap and attach water supply hose.
- Turn rodder pump valve on reel to off position.
- · Open handgun valve.
- Turn on rodder switch.

H. Maintenance

- · Grease all grease fittings on truck weekly.
- Drain water tanks by removing plugs.
- · Remove and clean pump screens.
- · Replace screens. Refill truck.
- · Remove cap on fan and plug at bottom.
- · Flush fan until water runs clear.

SANITARY SEWER REPAIR PROCEDURES

Subject: Repair Procedures

Purpose: To maintain a high standard of the sanitary sewer operation of all sanitary lines

within the City of St. Peters operational control.

Procedure:

A. General Guidelines

- Consult inspection reports to determine needed repairs.
- · Consult Utility Atlas as needed.
- Gas detection on each structure before entering
- If manhole entry is required, three persons are needed to perform work.
- All repair activities of main lines and manholes are to be in accordance with the scope of the repairs and within the specifications set forth by the Utilities Department.

B. Excavation Type Repairs

- Repairs to the main sewer lines are to be done according to the needed repairs as identified on the inspection reports.
- · All excavation safety practices are to be adhered to.
- Residents are to be notified prior to excavation of work to be performed. Customer survey to be provided to resident after work is completed.
- Repairs may be performed by the Utilities Department or an outside contractor.
- These type repairs typically will consist of removing and replacing a damaged or broken pipe or structure.
- · Pumping of flow may be required during this type of repair.
- All repair work performed shall be recorded on a work order.

C. Manhole Type Repairs

- All manhole repairs are to be performed according to the schedule.
- Consult inspection reports to determine type of repair needed.
- All confined space entry procedures must be adhered to, including gas detection on each structure before entering
- Repairs for I & I which include sealing shall consist of sealing the leaking areas with an approved sealing material and applied according to the manufacturer's instructions.
- Repairs for structural damage are to be done in accordance with an approved method determined by the Utilities Department. For example, this may include a lining method or excavation and replacement.
- · Each manhole is to have a manhole inspection form filled out during all work
- All manhole work performed shall be recorded on a work order.

D. Joint Sealing

- Sealing of joints for root intrusion or 1 & I shall be done in accordance to the schedule.
- Consult inspection reports to determine conditions.
- Sealing with a T.V./Seal Unit shall be in accordance with the manufacturer's recommendations. Consult operations manual.
- All sealing work performed shall be recorded on a work order.



POLICY NO.: ADM-16

POLICY: Utility Settlement Under Private Driveways

ORIGINAL ISSUE DATE:

REVISION EFFECTIVE DATE: 03/18/04

Approved by:

PURPOSE: The purpose of this policy is to establish guidelines for determining City

responsibility for settling in private driveways.

POLICY: The City is responsible for repair of private driveways only when the settling

is due to a deficiency in a City maintained service line. The City will

investigate all such complaints to determine responsibility.

LINE SETTLEMENT UNDER PRIVATE DRIVEWAYS:

The City has a policy of inspecting all complaints of settlement to determine if the City is responsible for repairs. The Citizen Action Center will refer all calls to the appropriate departments to ensure that qualified personnel will inspect the area of settlement. The City's legal counsel has determined that the City is not responsible for damage unless it is the result of the City's negligence in the repair of a broken municipal service line or other condition in a service line. The resident is informed promptly of the determination of responsibility. The City may provide and deliver fill material if available, for owner's use in filling in settlement over City utilities in areas where it has been determined that the City is not responsible for repairs.



POLICY NO.: ADM-20

POLICY: Sanitary Sewer Backup Concerns

ORIGINAL ISSUE DATE: 08/01/1996 REVISION EFFECTIVE DATE: 03/23/04

Approved by:

PURPOSE: The purpose of this policy is to establish guidelines for responding to sanitary

sewer back-up problems when reported by residents.

POLICY: It is the policy of the City of St. Peters to handle complaints of sanitary sewer

back-up problems according to the established guidelines.

SANITARY SEWER BACK-UP COMPLAINTS RESPONSE GUIDELINES:

Sewer back-up damage claims or problems should be referred to the Citizen Action Center so that they can be properly documented and forwarded to the Utility Department for corrective action and to the Purchasing Department for insurance purposes.

Reports of sewer back-ups should be considered emergencies. The person receiving the report should refer the call to the Citizen Action Center; if City Hall offices are closed, contact the Utilities Department immediately calling 278-2221. If no one can be reached at that number call the Police Department and ask the dispatcher to contact Utilities personnel by radio. Whomever receives a report of a sewer back-up from a resident should make a complete report including the time of the call/report, date, full name, address and phone number of complainant, and any other pertinent information; in addition, note action taken to handle call. Forward that report to the Citizen Action Center.

The complainant should be assured that the Utility Department will be notified of the problem immediately. Encourage the resident to have sewage cleaned up without delay to minimize the property loss and health hazard. If they have questions concerning liability, ask them to call the Purchasing Department during working hours for assistance in filing a claim. The Utility Department will provide the resident with a copy of the "Emergency Procedures" excerpt (Appendix C) as measures to be taken regardless of fault.

UTILITY DEPARTMENT RESPONSIBILITY:

Utility Department should handle the problems immediately and never indicate who is at fault. The City's insurance carrier will make the determination based upon the circumstances. Here is the "rule-of-thumb", although each claim will be handled individually:

CITY OF ST. PETERS, MISSOURI

POLICY: Sanitary Sewer Backup Concerns

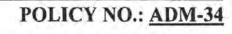
The City of St. Peters is not liable unless the City is aware of a problem or a potential problem and neglects to correct it.

- 1. City is never liable if the block or problem is in the lateral.
- 2. When the block is in the main, or evidence indicates it was in the main, but was temporary and it cannot be determined what caused the block, the City is not liable because the City was unaware of the problem and the City has no control over what people put in the mains.
- 3. If the City is aware of a problem and does not clear the block or repair the problem, then the City may have some liability.

UTILITY MANAGER REPORT:

Within twenty-four hours, the Utility Manager must submit a written report to the Purchasing Agent detailing the circumstances: What was the problem? Have there been other sewer back-ups reported in the area? Is this new construction or an older subdivision?

Report should give as much information as possible so that the City's insurance company can determine whether the City has any liability. Resident complaint forms should be completed with date handled and returned to the Citizen Action Center for their files.





POLICY: SEWER LATERAL REPAIR PROGRAM

ORIGINAL ISSUE DATE: 05/11/06
REVISION EFFECTIVE DATE: 01/06/12
Approved by:

<u>PURPOSE:</u> The purpose of this policy is to establish guidelines and procedures for the consistent implementation of the Sewer Lateral Repair Program in helping our residents in the necessary repair of their private sanitary sewer lateral lines.

<u>POLICY:</u> It is the policy of the City of St. Peters to provide assistance to owners of residential property within the City limits for the repair of sanitary sewer lateral lines that connect each residence to public sewers. The City Administrator shall promulgate rules and regulations to carry out the purposes and intent of the Sewer Lateral Repair Program to protect the public safety, health and welfare and to administer the program in an effective, efficient and timely manner.

SEWER LATERAL REPAIR PROGRAM:

In 2003, with authorization by state statutes and approval of the voters in the City of St. Peters, a \$28.00 per household annual assessment (billed by St. Charles County along with the annual real estate taxes) was established to fund the Sewer Lateral Repair Program.

Private residential sanitary sewer lateral lines are defined as that portion from the city sewer main to the foundation wall of the residence. The program includes real estate within the City of St. Peters as identified by a single locator number in which the St. Charles County Assessor's Office classifies as: Class One--Single-Family Residence (r), Class Thirteen-Duplex (r), Class Fourteen--Condo Residential (r), Class Nineteen--Single Unit Apartment (r), Class Thirty-One--Residential Triplex (r), Class Forty-One--Four Units (r), Class Fifty-Four--Five Units (r) or Class Sixty-Four--Six Units (r).

Application forms for the program are available from the City and must be completed and submitted along with a copy of the paid real estate tax receipt from the prior taxing year, copies of any sewer cleaning bills (if available) and the \$300.00 application fee.

After program eligibility is determined, the City contractor will schedule an inspection time with the homeowner to perform a video inspection of the sewer lateral lines to verify the nature and location of any defect. The video and written report will be returned to City staff for review and determination of the eligibility of a repair.

CITY OF ST. PETERS, MISSOURI

POLICY: Sewer Lateral Repair Program

Eligible repairs are:

- Repairs to private sanitary sewer lateral lines from the exterior building foundation wall to the public sewer main
- · Required street, sidewalk, or driveway pavement replacement
- Sod for yard repair
- · Permits and administrative costs

Ineligible repairs consist of, but are not limited to:

- Repair, relocation, or damage to structures, retaining walls, swimming pools, sprinkler systems, electronic dog fences, and landscaping
- · Damage caused by sanitary sewer backup
- · Damage caused by contractor's performance
- Repairs or videos performed prior to application and acceptance into the program

If a repair is deemed eligible, and funds are still available, City staff will obtain three bids for repair. City staff will approve the lowest qualified bid. The resident will be informed of bid results and the cost (if any) not covered by the Sewer Lateral Repair Program. The contractor will be issued a notice to proceed after bonding and insurance requirements are completed. The contractor will then apply for and be issued a permit to perform the work. The City Administrator will be responsible for approving field directives during repair up to assigned purchasing limits. After passing a final inspection by the City's Building Department, the City will issue payment made payable to the contractor.

If there is no defect or a defect is not eligible for this program, the remaining balance from the \$300.00 application fee will be refunded to the homeowner, after deduction of payment to the video contractor.

This program will provide a maximum of \$7,500 per household (limited to one (1) time per calendar year) with any remaining balance being the homeowner's responsibility.

Funds are allocated on a first-come, first-served basis until all the funds have been used for that calendar year. If there are no more available funds, applications may still be submitted for review with qualified applicants with eligible repairs being placed on a waiting list for the next year's funds. If any funds are not used during the calendar year, they will be carried over to the next year for use on eligible repair projects for applicants.

CITY OF ST. PETERS, MISSOURI

POLICY: Sewer Lateral Repair Program

NOTE: If the City initiates a repair at the main, the homeowners will not be responsible for any repair costs for that repair.

EMERGENCY SEWER LATERAL REPAIRS

Homeowner must complete the application process and submit a copy of the paid real estate tax receipt from the prior taxing year, and the \$300.00 application fee. After program eligibility is determined, the City contractor will be dispatched to perform a video inspection of the sewer lateral lines to verify the nature and location of the defect.

Emergencies are defined as:

 A defect in the lateral structure which severely impedes or does not allow flow of sewage from the residence, and cannot be temporarily relieved by sewer cleaning procedures.

If a repair is determined to be an emergency in order to restore service, the City Administrator will be responsible for approving requests to waive the bid process. The resident will be informed of the cost (if any) not covered by the Sewer Lateral Repair Program. The contractor will be issued a notice to proceed after bonding and insurance requirements are completed. The contractor will then apply for and be issued a permit to perform the work. The City Administrator will be responsible for approving field directives during repair up to assigned purchasing limits. After passing a final inspection by the City's Building Department, the City will issue payment made payable to the contractor.

TARGETED SEWER LATERAL REPAIRS

Areas targeted by City initiation will be based on documented sewer lateral backups, pipe type, City maintenance program, City main repairs and previous lateral repairs. Applicants will be notified of upcoming projects that include their residence. Applicants must complete the application process and submit a copy of the paid real estate tax receipt from the prior taxing year. Residences will be placed in groups for bid and will be subject to City of St. Peters purchasing bid process.

The application fee and per household maximum will be waived for all targeted sewer lateral repairs. Homeowners will not be responsible for any City directed repair costs.

NEW HOME LATERAL INSPECTIONS

In an effort to protect the residents from premature sewer lateral failure, all home builders are required to schedule a video inspection of the sewer lateral through the City. Inspections shall be scheduled before hard improvements are installed. After receipt of request of

CITY OF ST. PETERS, MISSOURI

POLICY: Sewer Lateral Repair Program

inspection, the City's contractor will schedule a video inspection of the sewer lateral lines to determine if any defects exist. The video and written report will be returned to City staff for review and determination. City staff will issue approval or failure notice to the home builder.

Necessary Repairs are:

- · Breaks or cracks in the pipe structure
- · Protrusions in pipe walls which indicate point loading
- Diametric pipe deflection in excess of pipe manufacturer's recommendations
- · Negative slope in lateral causing sewage to be retained in excess of one inch
- · Presence of debris (mud, rock etc.) that impede flow
- Failure to follow manufacturer's standards for installation

Home builder will be responsible for all repairs deemed necessary to correct deficiencies identified by City staff before occupancy permits will be approved.

APPENDIX C

OTHER REFERENCES

- 1. Smoke testing Notification Letter
- 2. Municipal Code of the City of St. Peters Chapter 710: Sewers
- 3. Ordinance No. 5023 Fats, Oils and Grease Control (FOG)
- 4. FOG Best Management Practices
- 5. City of St. Peters Fats, Oils and Grease Program (FOG) Pamphlet
- Annual Report letter to DNR in accordance with NPDES permit requirements
- 7. Municipal Code of the City of St. Peters Chapter 715: Uniform Requirements for Direct and Indirect Contributors into the Waste Water Collection and Treatment System (Pretreatment)

Dear Valued Customer:

Smoke testing is scheduled in your area during the following time:

DATE TIME

During this time, there will be periods when you may notice smoke in your area. Prior to the above noted time you may want ensure that there is water in all traps in your home.

We apologize for any inconvenience this may cause you. Thanks for your patience and if you have any questions, you can contact the Utilities Department at 278-2221, extension 1573.

Utilities Department City of St. Peters

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ARTICLE I. IN GENERAL

SECTION 710.010: DEFINITIONS

For the purposes of this Chapter, the following words and phrases shall have the meanings respectively ascribed to them by this Section:

BOD (DENOTING BIOCHEMICAL OXYGEN DEMAND): The quantity of oxygen utilized in the biochemical oxidation of organic matter under standard laboratory procedure in five (5) days at twenty degrees Centigrade (20°C), expressed in milligrams per liter (mg/l).

BUILDING DRAIN: That part of the lowest horizontal piping of a drainage system which receives the discharge from soil, waste, and other drainage pipes inside the walls of the building and conveys it to the building sewer, beginning five (5) feet outside the inner face of the building wall.

BUILDING SEWER: The extension from the building drain to the public sewer or other place of disposal.

COD (DENOTING CHEMICAL OXYGEN DEMAND): A measure of the oxygen required to oxidize all compounds, both organic and inorganic, in water.

INDUSTRIAL WASTES: The liquid wastes from industrial processes, as distinct from sanitary sewage.

MANAGER: The Manager of Water Environment Services of the City or his/her authorized deputy, agent or representative.

NATURAL OUTLET: Any outlet into a watercourse, pond, ditch, lake or other body of surface or ground water.

NORMAL DOMESTIC WASTEWATER: Wastewater that has a BOD concentration of not more than two hundred (200) mg/l, a suspended solids concentration of not more than two hundred twenty-five (225) mg/l, a COD concentration of not more than four hundred (400) mg/l, and a surfactant concentration of not more than ten (10) mg/l.

NORMAL DOMESTIC WASTE WATER: Waste water that has a BOD concentration of not more than two hundred (200) mg/l and a suspended solids concentration of not more than two hundred twenty-five (225) mg/l.

OPERATION AND MAINTENANCE: All expenditures during the useful life of the treatment works for materials, labor, utilities, and other items which are necessary for managing and maintaining the sewage works to achieve the capacity and performance for which such works were designed and constructed.

pH: The logarithm of the reciprocal of the weight of hydrogen ions in grams per liter of solution.

PLUMBING INSPECTOR: The authorized agent of the Manager charged with the responsibility to enforce rules and regulations pertaining to sanitary plumbing.

PUBLIC SEWER: A sewer in which all owners of abutting properties have equal rights, and which is controlled by public authority.

REPLACEMENT: Expenditures for obtaining and installing equipment accessories, or appurtenances which are necessary during the useful life of the treatment works to maintain the capacity and performance for which such works were designed and constructed. The term "operation and maintenance" includes replacement.

RESIDENTIAL CONTRIBUTOR: Any contributor to the City's treatment works whose lot, parcel of real estate, or building is used for domestic dwelling purposes only. This includes multiple units that are master metered.

SEWAGE: A combination of the water carried wastes from residences, business buildings, institutions and industrial establishments, together with such ground, surface and stormwaters as may be present.

SHALL: Is mandatory. MAY: Is permissive.

SURFACTANTS: Surface active agents commonly known as soaps, detergents, dispersants, and cleaners. Hydrophobic or hydrophilic surfactants with either cationic, anionic, or non-ionic characteristics.

SUSPENDED SOLIDS: Solids that either float on the surface of or are in suspension in water, sewage or other liquids, and which are removable by laboratory filtering.

TREATMENT WORKS: Any devices and systems for the storage, treatment, recycling, and reclamation of municipal sewage, domestic sewage, or liquid industrial wastes. These include intercepting sewers, outfall sewers, sewage collection systems, individual systems, pumping, power, and other equipment and their appurtenances; extensions improvement, remodeling, additions and alterations thereof; elements essential to provide a reliable recycled supply such as standby treatment units and clear well facilities; and any works, including site acquisition of the land that will be an integral part of the treatment process or is used for ultimate disposal of residues resulting from such treatment (including land for composting sludge, temporary storage of such compost, and land used for the storage of treated waste water in land treatment systems before land application); or any other method or system for preventing, abating, reducing,

storing, treating, separating, or disposing of municipal waste or industrial waste, including waste in combined stormwater and sanitary sewer systems.

USEFUL LIFE: The estimated period during which a treatment works will be operated.

USER CHARGE: That portion of the total waste water service charge which is levied in a proportional and adequate manner for the cost of operation, maintenance, and replacement of the waste water treatment works.

WATER METER: A water volume measuring and recording device, furnished and/or installed by the City of St. Peters or furnished and/or installed by a user and approved by the City of St. Peters. (R.O. 2007 §§710.010, 710.260(J); CC 1979 §27-14; Ord. No. 46 Art. 1, 8-18-69; Ord. No. 5635 §4, 8-25-11)

SECTION 710.020: DISCHARGE OF SANITARY SEWAGE, INDUSTRIAL WASTES, ETC., TO NATURAL OUTLETS

It shall be unlawful to discharge to any natural outlet within the City or within any area under the jurisdiction of the City any sanitary sewage, industrial wastes or other polluted waters, except where suitable treatment has been provided in accordance with this Chapter. (R.O. 2007 §710.020; CC 1979 §27-15; Ord. No. 46 Art. 2, 8-18-69)

SECTION 710.030: PRIVIES, CESSPOOLS, ETC., RESTRICTED

Except as provided in this Chapter, it shall be unlawful to construct or maintain any privy, privy vault, septic tank, cesspool or other facility intended or used for the disposal of sewage. (R.O. 2007 §710.030; CC 1979 §27-16; Ord. No. 46 Art. 2, 8-18-69)

SECTION 710.040: SEWER CONNECTIONS REQUIRED

The owner of any house, building or property used for human occupancy, employment, recreation or other purpose, situated within the City and abutting on any street, alley or right-of-way in which there is located a public sanitary sewer of the City shall, at his/her expense, install suitable toilet facilities therein and shall connect such facilities directly with the proper public sewer in accordance with the provisions of this Article within ninety (90) days after the date of official notice to do so; provided, that such public sewer is within one hundred (100) feet of the property line. (R.O. 2007 §710.040; CC 1979 §27-17; Ord. No. 46 Art. 2, 8-18-69)

SECTION 710.050: PRIVATE SEWAGE DISPOSAL SYSTEMS

A. Where a public sanitary sewer is not available under the provisions of <u>Section 710.040</u>, the building sewer shall be connected to a private sewage disposal system. The owner shall first obtain a written permit signed by the Manager. The application for such permit shall be

made on a form furnished by the City, which the applicant shall supplement by any plans, specifications and other information as are deemed necessary by the Manager. A permit and inspection fee shall be paid to the City at the time the application is filed.

- B. A permit for a private sewage disposal system shall not become effective until the installation is completed to the satisfaction of the Manager. He/she shall be allowed to inspect the work at any stage of construction, and in any event, the applicant for the permit shall notify the Manager when the work is ready for final inspection and before any underground portions are covered. The inspection shall be made within forty-eight (48) hours of the receipt of notice by the Manager.
- C. At such time as a public sewer becomes available to a property served by a private sewage disposal system, as provided in <u>Section 710.040</u>, a direct connection shall be made to the public sewer in compliance with this Article, and any septic tanks, cesspools and similar private sewage disposal facilities shall be abandoned and filled with suitable material.
- D. The owner shall operate and maintain the private sewage disposal facilities in a sanitary manner at all times, at no expense to the City.
- E. No statement contained in this Section shall be construed to interfere with any additional requirements that may be imposed by the Manager of Public Works Services. (R.O. 2007 §710.050; CC 1979 §27-18; Ord. No. 46 Art. 3, 8-18-69)

SECTION 710.060: DAMAGING, DEFACING, TAMPERING WITH, ETC., SEWAGE WORKS

No unauthorized person shall maliciously, willfully or negligently break, damage, destroy, uncover, deface or tamper with any structure, appurtenance or equipment which is a part of the municipal sewage works. (R.O. 2007 §710.060; CC 1979 §27-19; Ord. No. 46 Art. 6, 8-18-69)

SECTION 710.070: RIGHT OF ENTRY OF INSPECTORS, ETC.

The Manager and other duly authorized employees of the City bearing proper credentials and identification shall be permitted to enter upon all properties for the purposes of inspection, observation, measurement, sampling and testing, in accordance with the provisions of this Chapter. (R.O. 2007 §710.070; CC 1979 §27-20; Ord. No. 46 Art. 7, 8-18-69)

SECTION 710.080: VIOLATIONS

A. Any person found to be violating any provision of this Chapter except <u>Section 710.060</u> shall be served by the City with written notice, stating the nature of the violation and providing a reasonable time limit for the satisfactory correction thereof. The offender shall, within the period of time stated in such notice, permanently cease all violations.

- B. Any person who shall continue any violation beyond the time limit provided for in this Section shall be deemed guilty of an ordinance violation.
- C. Any person violating any of the provisions of this Chapter shall become liable to the City for any expense, loss or damage occasioned the City by reason of such violation. (R.O. 2007 §710.080; CC 1979 §27-21; Ord. No. 46 Art. 8, 8-18-69)

SECTION 710.085: SEWER LATERAL REPAIR PROGRAM

A. Definitions. For purposes of this Section, the following terms shall be deemed to have the meanings indicated:

RESIDENTIAL PROPERTY: Real estate within the City of St. Peters, identified by a single locator number in which the St. Charles County Assessors Office classifies as: Class One-Single-Family Residence (r), Class Thirteen-Duplex (r), Class Fourteen-Condo Residential (r), Class Nineteen-Single Unit Apartment (r), Class Thirty-One-Residential Triplex (r), Class Forty-One-Four Units (r), Class Fifty-Four-Five Units (r) or Class Sixty-Four-Six Units (r) excepting therefrom any property identified by the City Administrator or his/her designee as a residential property having more than six (6) dwelling units.

SEWER LATERAL: That portion of the residential properties sanitary sewer piping that runs between the sewer main and the foundation of the dwelling unit or units.

- B. Sewer Lateral Repair Fee. An annual fee of twenty-eight dollars (\$28.00) shall be collected from all residential property within the City of St. Peters for the purposes of paying the cost of certain repairs of defective lateral sewer service lines.
- C. Sewer Lateral Repair Fund. A special account shall be created solely for the purpose of paying for all or a portion of the cost reasonably associated with and necessary to administer and carry out the defective lateral sewer service line repairs. All interest generated on deposited funds shall be accrued to the special account established for the repair of lateral sewer service lines and shall be known as the Sewer Lateral Repair Fund. The St. Peters Director of Finance shall administer and disburse funds from this fund upon authorization of the City Administrator or his/her designee.
- D. Availability Of Funds. Administration of the Sewer Lateral Repair Program shall be contingent upon the availability of funds collected or anticipated to be collected pursuant to the twenty-eight dollar (\$28.00) yearly fee imposed by Subsection (B) above.
- E. Rules And Regulations. The City Administrator shall promulgate rules and regulations to carry out the purposes and intent of the Sewer Lateral Repair Program to protect the public safety, health and welfare and to administer the program in an effective, efficient and timely manner. (R.O. 2007 §710.085; Ord. No. 3839 §1, 6-12-03)

ARTICLE II. SEWER MAINS

SECTION 710.090: NEW OR EXTENDED SANITARY SEWER MAINS

- A. Applications for new or extended sewer mains by any person shall be made in writing to the City Administrator and such applications shall be accompanied by three (3) copies of the plan and three (3) copies of the estimated construction costs as prepared by the applicant's engineer for the tract of land to which or in which such new or extended sewer main is requested, showing streets, alleys, easements, property lines and the proposed location of sewer lines, and all proposed connections thereto. All applications for sewer taps or connections to sewer mains and extension shall be in writing and accompanied by a drawing showing the location of the main or extension and the location of the proposed connection to the main or extension. The City shall charge the applicant a fee for sewer connections or tapons as authorized and approved by the Board from time to time and as presently provided in Chapter 700, Section 700.040. The City reserves the right to refuse service where deemed impractical or incompatible with the system.
- B. All sewer mains and extensions thereof constructed or installed under the provisions of this Section shall be the property of the City, and the City may at any time allow connections of other sewer mains to any main or extension. In the event the City requires the oversizing of any sewer mains,

the City will negotiate the refund or compensation to the applicant for expenses in construction of the oversized portion of the sewer mains.

C. The applicant's or the developer's engineer shall submit to the City for its review and approval three (3) copies of the sewer plan showing the size of sewer main, proposed pipe material, connections, manholes, and location of the same. Information shall also be provided on the sewer profile including pipe invert elevations at each manhole and connection points to existing manholes. The City reserves the right to determine the size of pipe based upon the City's long-range sewer use plan. (R.O. 2007 §710.090; Ord. No. 2603 §2, 12-12-96)

ARTICLE III. BUILDING SEWERS

SECTION 710.100: PERMIT -- REQUIRED

No unauthorized person shall uncover, make any connections with or opening into, use, alter or disturb any public sewer or appurtenance thereof without first obtaining a written permit from the City. (R.O. 2007 §710.100; CC 1979 §27-22; Ord. No. 46 Art. 4, 8-18-69)

SECTION 710.110: PERMIT -- CLASSIFICATION -- APPLICATION -- FEE

There shall be two (2) classes of building sewer permits; one (1) class shall be for residential and commercial service and the other for service to establishments producing industrial wastes. In either case the owner or his/her agent shall make application on a special form furnished by the

City. The permit application shall be supplemented by any plans, specifications or other information considered pertinent in the judgment of the Building Commissioner or his/her designee. A permit and inspection fee shall be paid to the City, at the time the application is filed. (R.O. 2007 §710.110; CC 1979 §27-23; Ord. No. 46 Art. 4, 8-18-69)

SECTION 710.120: OWNER TO BEAR COSTS OF AND INDEMNIFY CITY FOR LOSS OR DAMAGE OCCASIONED BY INSTALLATION AND CONNECTION

All costs and expenses incident to the installation and connection of the building sewer shall be borne by the owner. The owner shall indemnify the City from any loss or damage that may, directly or indirectly, be occasioned by the installation of the building sewer. (R.O. 2007 §710.120; CC 1979 §27-24; Ord. No. 46 Art. 4, 8-18-69)

SECTION 710.130: SEPARATE BUILDING SEWER REQUIRED FOR EACH BUILDING -- EXCEPTION

A separate and independent building sewer shall be provided for every building; except, that where one (1) building stands at the rear of another on an interior lot and no private sewer is available or can be constructed to the rear, the building sewer from the front building may be extended to the rear building and the whole considered as one (1) building sewer. (R.O. 2007 §710.130; CC 1979 §27-25; Ord. No. 46 Art. 4, 8-18-69)

SECTION 710.140: USE OF OLD BUILDING SEWERS FOR NEW BUILDINGS

Old building sewers may be used in connection with new buildings only when they are found, on examination and test by the Building Commissioner or his/her designee, to meet all requirements of this Article. (R.O. 2007 §710.140; CC 1979 §27-26; Ord. No. 46 Art. 4, 8-18-69)

SECTION 710.150: PLACING IN SAME TRENCH WITH WATER SERVICE LINES - BEDDING

Building sewers shall not be placed in the same trench with water service lines. If installed in filled or unstable ground, the building sewer shall be properly bedded as approved by the Building Commissioner or his/her designee. (R.O. 2007 §710.150; CC 1979 §27-27; Ord. No. 46 Art. 4, 8-18-69)

SECTION 710.160: ELEVATION -- DISTANCE FROM BEARING WALLS -- GRADE AND ALIGNMENT -- CHANGES IN DIRECTION

Whenever possible, the building sewer shall be brought to the building at an elevation below the basement floor. No building sewer shall be laid parallel to or within three (3) feet of any bearing wall, which might thereby be weakened. The building sewer shall be laid at uniform grade and

in straight alignment, insofar as possible. Changes in direction shall be made only with properly curved pipe and fittings. (R.O. 2007 §710.160; CC 1979 §27-28; Ord. No. 46 Art. 4, 8-18-69)

SECTION 710.170: INSPECTION -- CONNECTION TO PUBLIC SEWER

The applicant for the building sewer permit shall notify the City when the building sewer is ready for inspection and connection to the public sewer. The connection shall be made under the supervision of the Building Commissioner or his/her representative. (R.O. 2007 §710.170; CC 1979 §27-29; Ord. No. 46 Art. 4, 8-18-69)

SECTION 710.180: GUARDING OF EXCAVATIONS -- RESTORATION OF STREETS, SIDEWALKS, ETC.

All excavations for building sewer installations shall be adequately covered or guarded with barricades and lights so as to protect the public from hazard. Streets, sidewalks, parkways and other public property disturbed in the course of the work shall be restored in a manner satisfactory to the City. (R.O. 2007 §710.180; CC 1979 §27-30; Ord. No. 46 Art. 4, 8-18-69)

ARTICLE IV. RESTRICTED USE OF PUBLIC SEWERS

SECTION 710.190: PROHIBITED DISCHARGES GENERALLY

No person shall discharge or cause to be discharged any stormwater, surface water, ground water, roof runoff water, subsurface drainage, including interior and exterior foundation drains, uncontaminated cooling water or unpolluted industrial process waters to any sanitary sewer. (R.O. 2007 §710.190; CC 1979 §27-31; Ord. No. 46 Art. 5, 8-18-69; Ord. No. 239 §1, 3-1-76)

SECTION 710.200: DISCHARGE OF CERTAIN WATERS OR WASTES RESTRICTED

Except as provided in this Article, no person shall discharge or cause to be discharged any of the following described waters or wastes to any public sewer:

- Any liquid or vapor having a temperature higher than one hundred fifty degrees Fahrenheit (150°F).
- 2. Any water or waste which may contain more than one hundred (100) parts per million by weight of fat, oil or grease.
- Any gasoline, benzene, naphtha, fuel oil or other flammable or explosive liquid, solid or gas.

- 4. Any garbage that has not been properly shredded.
- Any ashes, cinders, sand, mud, straw, shavings, metal, glass, rags, feathers, tar, plastics, wood, paunch manure or any other solid or viscous substance capable of causing obstruction to the flow in sewers or other interference with the proper operation of the sewage works.
- Any waters or wastes having a pH lower than 5.5 or higher than 11.5 or having any other corrosive property capable of causing damage or hazard to structures, equipment and personnel of the sewage works.
- 7. Any waters or wastes containing a toxic or poisonous substance in sufficient quantity to injure or interfere with any sewage treatment process, constitute a hazard to humans or animals or create any hazard in the receiving waters of the sewage treatment plant.
- Any waters or wastes containing suspended solids of such character and quantity that unusual attention or expense is required to handle such materials at the sewage treatment plant.
- Any noxious or malodorous gas or substance capable of creating a public nuisance. (R.O. 2007 §710.200; CC 1979 §27-32; Ord. No. 46 Art. 5, 8-18-69)

SECTION 710.210: FATS, OILS AND GREASE CONTROL

- A. Scope And Purpose. The objective of this Section is to aid in preventing the introduction and accumulation of fats, oils, and greases into the municipal wastewater system, which will or tend to cause or contribute to sanitary sewer blockages and obstructions. Food service establishments and other industrial or commercial establishments generating wastewater containing fats, oils or greases are subject to this Section. This Section regulates such users by requiring that grease interceptors and other approved strategies be installed, implemented, and maintained in accordance with the provisions hereof.
- B. Definitions. The definitions contained in <u>Section 710.010</u> and the following terms, when used in this Section, shall apply.

ACTION LEVEL: The concentration based numeric value that the grease interceptor effluent, at the device's outlet tee and prior to mixing with any other waste water from the contributing establishment's property, are expected to achieve on a consistent or stipulated basis.

COMMON INTERCEPTOR: One (1) or more interceptors receiving FOG laden wastewater from more than one (1) establishment. Common interceptors may be located at shopping centers, malls, entertainment complexes, sporting arenas, hotels, multi-tenant "flex" spaces, mixed-use spaces, and other sites where multiple establishments are connected to a single grease

interceptor. The owner of the property on which the common grease interceptor is located shall be primarily responsible for the maintenance, upkeep, and repair of the common interceptor.

DIRECTOR: City of St. Peters Director of Utilities or designee.

FATS, OILS, AND GREASES: Organic polar compounds derived from animal and/or plant sources that contain multiple carbon chain triglyceride molecules. These substances are detectable and measurable using analytical test procedures established in 40 CFR 136, as may be amended from time to time. All are sometimes referred to herein as "grease" or "greases" or "FOG".

FOOD SERVICE ESTABLISHMENTS OR "FSE": Those establishments primarily engaged in activities of preparing, serving, or otherwise making available for consumption foodstuffs and that use one (1) or more of the following preparation activities: Cooking by frying (all methods), baking (all methods), grilling, sauteing, rotisserie cooking, broiling (all methods), boiling, blanching, roasting, toasting, or poaching, and infrared heating, searing, barbecuing, and any other food preparation or serving activity that produces a consumable food product in or on a receptacle requiring washing to be reused.

GREASE TRAP OR INTERCEPTOR: A device for separating waterborne greases and grease complexes from wastewater and retaining such greases and grease complexes prior to the wastewater exiting the trap and entering the sanitary sewer collection and treatment system. Grease traps also serve to collect solids that settle, generated by and from activities that subject users to this Section, prior to the water exiting the trap and entering the sanitary sewer collection and treatment system. Grease traps and interceptors are sometimes referred to herein as "grease interceptors".

MINIMUM DESIGN CAPABILITY: The design features of a grease interceptor and its ability or volume required to effectively intercept and retain greases and settled solids from grease-laden wastewaters discharged to the public sanitary sewer.

NON-COOKING ESTABLISHMENTS: Those establishments primarily engaged in the preparation of precooked foodstuffs that do not include any form of cooking, but that may produce a consumable food product in or on a receptacle requiring washing to be reused.

ON-SITE GREASE INTERCEPTOR TREATMENT (SOMETIMES ON-SITE TREATMENT):
Mechanisms or procedures utilized by a user to treat grease interceptor contents on the user's
site, followed by the reintroduction of such treated wastewater back into the interceptor. On-site
grease interceptor treatment may only be accomplished by a user if the user or the user's contract
service provider is licensed by St. Charles County and permitted by the St. Louis Metropolitan
Sewer District as a septage management firm or service provider. Disposal of all removed
wastes, food solids, and wastewater must be performed by a certified waste hauler.

PROGRAM ACKNOWLEDGEMENT CERTIFICATE: Program confirmation documentation issued by the Director. The user is required to keep Program Acknowledgement Certificate on premises and produce it upon request of the City of St. Peters.

SERVICE PROVIDER: Any third (3rd) party not in the employment of the user that performs maintenance, repair, and other services on a user's grease interceptor at the user's directive.

USER: Any person, including those located outside of jurisdictional limits of the City who contribute, causes, or permits the contribution or discharge of wastewater into the POTW, including persons who contribute such wastewater from mobile sources, such as those who discharge hauled wastewater. Users include property owners who provide common interceptors for one (1) or more independent establishments, including tenants.

- C. Grease Interceptor Installation, Maintenance, Record Keeping And Grease Removal.
 - Grease interceptors shall be installed and maintained at the user's expense, when a user operates a food service establishment. Grease interceptors may be required in noncooking or cold dairy and frozen foodstuffs establishments and other industrial or commercial establishments when the establishment generates wastewater containing fat or grease and the Director determines an interceptor is necessary to prevent contribution or accumulation of grease to the sanitary sewer collection and treatment system. Upon notification by the Director or designee that the user is subject to the terms of an enforcement action, said user shall not allow wastewater discharge concentration from subject grease interceptor to exceed an establishment action level of two hundred (200) milligrams per liter, expressed as Hexane Extractable Material. All grease interceptors shall be of a type, design, and capacity approved by the Director and shall be readily and easily accessible for maintenance and repair, including cleaning and for City inspection. All grease interceptors shall be serviced and emptied of accumulated waste content as required in order to maintain minimum design capability or effective volume of the grease interceptor, but not less often than every ninety (90) days or as permitted in a valid program modification. Users who are required to pass wastewater through a grease interceptor shall:
 - a. Provide for a minimum hydraulic retention time of twenty-four (24) minutes at actual peak flow between the influent and effluent baffles, with twenty-five percent (25%) of the total volume of the grease interceptor being allowed for any food-derived solids to settle or accumulate and floatable grease derived materials to rise and accumulate, identified hereafter as a solids blanket and grease cap respectively.
 - b. Remove any accumulated grease cap and solids blanket as required, but at intervals of not longer than ninety (90) days at the user's expense, or in accordance with a valid program modification or other director's requirements. Grease interceptors shall be kept free of inorganic solid materials, such as grit, rocks, gravel, sand, eating utensils, cigarettes, shells, towels, rags, etc., which could settle into this solids blanket and thereby reduce the effective volume of the grease interceptor.
 - c. If the user performs on-site grease interceptor treatment pursuant to a modification granted under <u>Section 710.210(C)(5)</u> below, user shall:

- Prior to commencement of on-site treatment obtain written approval by and from the Director of all processes utilized in said on-site treatment.
- (2) If any pumped wastes or other materials removed from the grease interceptor are treated in any fashion on-site and reintroduced back into the grease interceptor as an activity of such on-site treatment, the user shall meet the criteria stated below.
 - (3) Attain and adhere to the criteria listed below:
 - (a) After thirty (30) minutes of settling time, not more than 3.0 ml/L of settlable solids, as measured in a one (1) liter Imhoff cone shall be allowed, and;
 - (b) Within and not more than twenty-four (24) hours after onsite grease interceptor servicing, not more than two (2) inches of settlable solids and/or grease shall be allowed to have accumulated therein as a result of said operations.
 - (c) Any tanks, tankage, or vessel(s) associated with a modification shall be empty upon arrival at the initial FSE user site for which this modification is intended to be applied.
- (4) Removed waste material will be disposed of by a service provider that is licensed by St. Charles County and permitted by the St. Louis Metropolitan Sewer District as a septage management firm, certified hauler or service provider.
- d. Operate and maintain the grease interceptor to achieve and consistently maintain any applicable grease action level. "Consistent" shall mean any wastewater sample taken from such grease interceptor must meet the terms of numerical limit attainment described in Subsection (C)(1). If a user documents that conditions exist ("space constraints") on their establishment site that limit the ability to locate a grease interceptor on the exterior of the establishment, the user may request an interior location for the interceptor. Such request shall contain the following information:
 - Location of public sewer main and easement in relation to available exterior space outside building.
 - (2) Existing plumbing layout at or in a site.
 - (3) A Statement of Understanding, signed by the user or authorized agent, acknowledging and accepting conditions Director may place on permitting an identified interior location. Conditions may include requirements to use alternative mechanisms, devices, procedures, or operations relative to an interior location.

- (4) Such other information as may be required by the Director.
- e. The use of biological or other additives as a grease degradation or conditioning agent is permissible only upon prior written approval of the Director. Any user using biological or other additives shall maintain the trap or interceptor in such a manner that attainment of any grease wastewater, action level, solids blanket or grease cap criteria, goal or directive, as measured from the grease interceptor outlet or interior, is consistently achieved.
- f. The use of automatic grease removal systems is permissible only upon prior written approval of the Director and the City's Building Inspector. Any user using a grease interceptor located on the interior of the site shall be subject to any operational requirements set forth by the City of St. Peters. Any user using this equipment shall operate the system in such a manner that attainment of the grease wastewater discharge limit, as measured from the unit's outlet, is consistently achieved as required by the Director.
- g. The Director may make determinations of grease interceptor adequacy need, design, appropriateness, application, location, modification(s), and conditional usage based on review of all relevant information regarding grease interceptor performance, facility site and building plan review by all regulatory reviewing agencies and may require repairs to, or modification or replacement of grease interceptors.
- 2. The user shall maintain a written record of grease interceptor maintenance for three (3) years. All such records will be available for inspection by the City at all times. These records shall include:
 - a. FSE name and physical location;
 - b. Date of grease interceptor service;
 - c. Time of grease interceptor service;
 - d. Name of grease interceptor service company;
 - e. Name and signature of grease interceptor service company agent performing said service;
 - f. Established service frequency and type of service: full pump out, partial pump out, on-site treatment (type of nature of operations);
 - g. Number and size of each grease interceptor serviced at FSE location;
 - Approximated amount, per best professional judgment of contract service provider, of grease and solids removed from each grease interceptor;

- i. Total volume of waste removed from each grease interceptor;
- j. Destination of removed wastes, food solids, and wastewater disposal;
- k. Signature and date of FSE personnel confirming service completion; and
- Such other information as required by Director.
- No non-grease-laden sources are allowed to be connected to sewer lines intended for grease interceptor service.
- 4. Access manholes shall have an installed diameter of twenty-four (24) inches, a maximum weight of fifty (50) pounds, and shall be provided over each chamber, interior baffle wall, and each sanitary tee. The access penetrations, commonly referred to as "risers" into the grease interceptor shall also be, at a minimum, twenty-four (24) inches in diameter. The access manholes shall extend at least to finished grade and be designed and maintained to prevent water inflow or infiltration. The manholes shall also have readily removable covers to facilitate inspection, grease removal, and wastewater sampling activities.
- A user may request a modification to the following requirements of this Section.
 Such request for a modification shall be in writing and shall provide the information set forth below.
 - a. The user's grease interceptor pumping frequency. The Director may modify the ninety (90) day grease interceptor pump out frequency when the user provides data, and performance criteria relative to the overall effectiveness of a proposed alternate and such can be substantiated by the Director. Proposed alternatives may include: grease interceptor pumping or maintenance matters, bioremediation as a complement to grease interceptor maintenance, grease interceptor selection and sizing criteria, on-site grease interceptor maintenance, and specialized ware washing procedures.
 - b. Grease interceptor maintenance and service procedures. The Director may modify the method(s) or procedure(s) utilized to service a grease interceptor when the user provides data, and performance criteria related to the overall effectiveness of a proposed alternate method or procedure and such can be substantiated by the Director. If a modification to maintenance and service procedures is permitted it shall be a conditional discharged permit approval.
 - c. Any modification must be approved by the Director or designee in written form before implementation by the user or the user's designated service provider.
- D. Fees. Users shall pay an annual fee of one hundred fifty dollars (\$150.00) for program administration, inspection and record keeping. Fees paid by new businesses after December

first (1st) of the current year may be transferable to the following year at the discretion of the Environmental Compliance Inspector or his designee.

- E. Inspections. The user's premises shall be open at all reasonable times to the Director or designee, for the performance of inspections of grease interceptor maintenance practices within the customer's premises.
- F. Violations. The Director or designee will notify the user in writing of any violations, corrections required, and date compliance is required.
- G. Penalties. Any person convicted of violating any of the provisions of Section 710.210 shall be deemed guilty of a misdemeanor and shall be punished by imprisonment for a term of not more than ninety (90) days or by a fine of not more that five hundred dollars (\$500.00) and costs, or by both such fine and imprisonment. (R.O. 2007 §710.210; CC 1979 §27-33; Ord. No. 46 Art. 5, 8-18-69; Ord. No. 5023 §1, 6-12-08; Ord. No. 5573 §§1--3, 4-14-11)

SECTION 710.220: PRELIMINARY TREATMENT OF CERTAIN WATERS OR WASTES

- The admission into the public sewers of any waters or wastes having a five (5) day A. biochemical oxygen demand greater than two hundred (200) parts per million by weight, or containing more than two hundred twenty-five (225) parts per million by weight of suspended solids, or containing any quantity of substances having the characteristics described in Section 710.200 or having an average daily flow greater than twenty-five thousand (25,000) gallons per day shall be subject to the review and approval of the Manager. Where necessary, in the opinion of the Manager, the owner shall provide, at his/her expense, such preliminary treatment as may be necessary to reduce the biochemical oxygen demand to two hundred (200) parts per million and the suspended solids to two hundred twenty-five (225) parts per million by weight, or reduce objectionable characteristics or constituents to within the maximum limits provided for in Section 710,200 or control the quantities and rates of discharge of such waters or wastes. Plans, specifications and any other pertinent information relating to proposed preliminary treatment shall be submitted for the approval of the Manager and of the State Clean Water Commission, and no construction of such facilities shall be commenced until such approvals are obtained in writing.
- B. Where preliminary treatment facilities are provided for any waters or wastes, they shall be maintained continuously in satisfactory and effective operation by the owner, at his/her expense. (R.O. 2007 §710.220; CC 1979 §27-34; Ord. No. 46 Art. 5, 8-18-69)

SECTION 710.230: SAMPLING MANHOLE

When required by the Manager, the owner of any property served by a building sewer carrying industrial wastes shall install a suitable control manhole in the building sewer to facilitate observation, sampling and measurement of the wastes. Such manhole, when required, shall be

accessibly and safely located and shall be constructed in accordance with plans approved by the Manager. The manhole shall be installed by the owner at his/her expense and shall be maintained by him/her so as to be safe and accessible at all times. (R.O. 2007 §710.230; CC 1979 §27-35; Ord. No. 46 Art. 5, 8-18-69)

SECTION 710.240: MEASUREMENTS, TESTS AND ANALYSES GENERALLY

All measurements, tests and analyses of the characteristics of waters and wastes to which reference is made in Sections 710.200 and 710.220 shall be performed in accordance with the techniques prescribed in 40 CFR 136 and amendments thereto, otherwise approved by the EPA and shall be determined at the sampling manhole provided for in Section 710.230 or upon suitable samples taken at such sampling manhole. In the event that no special manhole has been required, the sampling manhole shall be considered to be the nearest downstream manhole in the public sewer to the point at which the building sewer is connected. (R.O. 2007 §710.240; CC 1979 §27-36; Ord. No. 46 Art. 5, 8-18-69)

SECTION 710.250: SPECIAL AGREEMENTS OR ARRANGEMENTS NOT PRECLUDED BY DIVISION

No statement contained in this Article shall be construed as preventing any special agreement or arrangement between the City and any industrial concern whereby an industrial waste of unusual strength or character may be accepted by the City for treatment, subject to payment therefor by the industrial concern. (R.O. 2007 §710.250; CC 1979 §27-37; Ord. No. 46 Art. 5, 8-18-69)

ARTICLE V. SEWER RATES

SECTION 710.260: SEWER RATE STRUCTURE

A. Occupants and owners of premises connected to the sewer system of the City shall pay for the services provided by the City based on the use of the treatment works as determined by water meter(s) acceptable to the City.

B. Basis Of Charges.

- Residential. For residential contributors, bi-monthly user charges will be based on average bi-monthly water usage during four (4) of the months of November, December, January, February and March. If a residential contributor has not (or cannot) established a four (4) month winter average, the bi-monthly user charge shall be the median charge of all other residential contributors.
- Industrial and commercial. For industrial and commercial contributors, user charges shall be based on water used during the current billing period. If a commercial or industrial contributor has a consumptive use of water, or in some other manner uses water

which is not returned to the waste water collection system, the user charge for that contributor may be based on a waste water meter(s) or separate water meter(s) installed and maintained at the contributor's expense, and in a manner acceptable to the City.

- 3. Those sewer customers not on the City's water system must provide a copy of the November, December, January and February water bills to the City no later than March thirty-first (31st) of each year. Non-residential customers must furnish the City a copy of their water bill within ten (10) days after receipt of their bill. If the required water bills are not furnished within the proper time period, then the Director of Finance shall estimate the water usage.
- 4. Sewer rates can also be established by contract with utilities certificated by the Missouri Public Service Commission and municipalities operating sewers within the City of St. Peters, provided that all such contracts shall be approved by an ordinance of the Board of Aldermen of the City of St. Peters. Such contract shall not be subject to the provisions of <u>Chapter 135</u> of this Code.
- C. (Reference is made to Appendix A and B of this Section, which are on file in the City offices.) The minimum bimonthly charge shall be three dollars thirty-two cents (\$3.32) of which one dollar fifty-eight cents (\$1.58) is for billing and collection and one dollar seventy-four cents (\$1.74) is for treatment of infiltration and inflow. In addition, each contributor shall pay a user charge rate of two dollars eighteen cents (\$2.18) per one thousand (1,000) gallons of water (or wastewater) as determined in Section 6 of Appendix A to this Section, of which one dollar forty-eight cents (\$1.48) is for operation and maintenance and seventy cents (\$0.70) is for debt service.
- D. (Reference is made to Appendix A which is on file in the City offices.) For those customers who contribute wastewater, the strength of which is greater than normal domestic sewage, a surcharge in addition to the normal user charge will be collected. The surcharge for operation and maintenance including replacement is:

\$0.23	per pound BOD	
\$0.12	per pound SS	
\$0.12	per pound COD	
\$0.56	per pound Surfactant	

- E. Any user which discharges any pollutants which cause an increase in the cost of managing the effluent or the sludge from the City's treatment works, or any user which discharges any substance which singly or by interaction with other substances causes identifiable increases in the cost of operation, maintenance, or replacement of the treatment works, shall pay for such increased costs including testing. The charge to each such user shall be determined by the responsible plant operating personnel and approved by the Board of Aldermen.
- F. The user charge rates established in this Article apply to all users, regardless of their location, of the City's sewer system. A charge for sewer service shall be included with the

bi-monthly water bills and shall be calculated as herein above set out. Penalty for delayed payments shall be the same as provided for in <u>Chapter 705, Section 705.040(G)</u> and <u>Chapter 700</u>, Section 700.060.

- G. The proceeds of such sewer service charges will be used and maintained as per <u>Section</u> 700.060 of Chapter 700 hereof.
- H. The City will review the user charge system at least every two (2) years, and revise user charge rates as necessary to ensure that the system generates adequate revenues to pay the costs of operation and maintenance including replacement and that the system continues to provide for the proportional distribution of operation and maintenance including replacement costs among users and user classes.
- I. The City will notify each user at least annually of the fixed sewer charge.
- J. When there is excessive water usage due to a leak or break in the water system, and where it can be established that said water did not enter into the sanitary sewer system, then the sewer usage charge computed from the excessive usage may be abated by the Director of Finance.
- K. A fee, in addition to the fees provided for in this Section, shall be charged to all existing and/or future industrial developments which contribute "process waste" to the facilities constructed under EPA Project No. C290660. Such fee shall be in accordance with Ordinance No. 240 and all amendments, continuations and new enactments on matters related thereto. (R.O. 2007 §710.260; CC 1979 §27-13.2; Ord. No. 573 §2, 3-13-80; Ord. No. 648 §3, 3-26-81; Ord. No. 697 §§3--4, 12-10-81; Ord. No. 713 §2, 4-15-82; Ord. No. 1164 §§3--4, 8-28-86; Ord. No. 1304 §§3--4, 8-27-87; Ord. No. 1443 §§3--4, 8-25-88; Ord. No. 1700 §§3--4, 12-13-90; Ord. No. 1734 §§2--3, 3-28-91; Ord. No. 2185 §§3--4, 8-25-94; Ord. No. 2791 §§3--4, 12-11-97; Ord. No. 2972 §§3--4, 11-12-98; Ord. No. 3096 §§3--4, 8-26-99; Ord. No. 3344 §§3--4, 12-14-00; Ord. No. 3538 §§3--4, 9-27-01; Ord. No. 3689 §§3--4, 8-22-02; Ord. No. 3880 §§4--5, 8-28-03; Ord. No. 4113 §§3--4, 8-26-04; Ord. No. 4326 §§3--4, 8-25-05; Ord. No. 4601 §§3--4, 8-24-06; Ord. No. 4849 §§3--4, 8-23-07; Ord. No. 5062 §§3--4, 8-28-08; Ord. No. 5252 §§3--4, 8-27-09; Ord. No. 5462 §§3--4, 8-26-10; Ord. No. 5635 §§5--6, 8-25-11)

Editor's Note--Ordinance no. 240, adopted March 1, 1976, entitled "An Ordinance Regulating Cost Recovery of Sewage Treatment Works by Payment of the Respective Share of the Cost of Such Treatment Works by Industrial Users", provides for a fee for industrial users contributing process waters to facilities constructed under E.P.A. Project No. C290660, in addition to the charges established by this division. Ordinance no. 240 has not been codified as part of this volume; rather, it has been saved from repeal by the ordinance adopting this codification. Copies thereof may be found on file in the office of the city clerk.

ORDINANCE NO. 5023

AN ORDINANCE OF THE CITY OF ST. PETERS, MISSOURI, REPEALING SECTION 710.210 OF THE CITY CODE IN ITS ENTIRETY AND ENACTING, IN LIEU THEREOF, A NEW SECTION 710.210 FATS, OILS AND GREASE CONTROL

NOW THEREFORE, BE IT ORDAINED BY THE BOARD OF ALDERMEN OF THE CITY OF ST. PETERS, AS FOLLOWS:

SECTION NO. 1. That Section 710.210 Grease, Oil and Sand Interceptors, of the St. Peters City Code shall be and is hereby repealed in its entirety and there is hereby enacted, in lieu thereof, a new Section 710.210 Fats, Oils and Grease Control, as follows:

SECTION 710.210 FATS, OILS AND GREASE CONTROL

- A. Scope and purpose. The objective of this section is to aid in preventing the introduction and accumulation of fats, oils, and greases into the municipal wastewater system, which will or tend to cause or contribute to sanitary sewer blockages and obstructions. Food Service Establishments and other industrial or commercial establishments generating wastewater containing fats, oils or greases are subject to this section. This section regulates such users by requiring that grease interceptors and other approved strategies be installed, implemented, and maintained in accordance with the provisions hereof.
- Definitions. The definitions contained in Section 710.010 and the following terms, when used in this section, shall apply.

ACTION LEVEL: means the concentration based numeric value that the Grease interceptor effluent, at the device's outlet the and prior to mixing with any other waste water from the contributing establishment's property, are expected to achieve on a consistent or stipulated basis.

COMMON INTERCEPTOR: means one or more interceptors receiving FOG laden wastewater from more than one establishment. Common interceptors may be located at shopping centers, malls, entertainment complexes, sporting arenas, hotels, multi-tenant "flex" spaces, mixed-use spaces, and other sites where multiple establishments are connected to a single grease interceptor. The owner of the property on which the common grease interceptor is located shall be primarily responsible for the maintenance, upkeep, and repair of the common interceptor.

DIRECTOR: means City of St. Peters Director of Utilities.

FATS, OILS, AND GREASES: means organic polar compounds derived from animal and/or plant sources that contain multiple carbon chain triglyceride molecules. These substances are detectable and measurable using analytical test procedures established in

40 CFR 136, as may be amended from time to time. All are sometimes referred to herein as "grease" or "FOG".

FOOD SERVICE ESTABLISHMENTS OR "FSE": means those establishments primarily engaged in activities of preparing, serving, or otherwise making available for consumption foodstuffs and that use one or more of the following preparation activities: Cooking by frying (all methods), baking (all methods), grilling, sauteing, rotisserie cooking, broiling (all methods), boiling blanching, roasting, toasting, or poaching, and infrared heating, searing, barbecuing, and any other food preparation or serving activity that produces a consumable food product in or on a receptacle requiring washing to be reused.

GREASE TRAP OR INTERCEPTOR: means a device for separating waterborne greases and grease complexes from wastewater and retaining such greases and grease complexes prior to the wastewater exiting the trap and entering the sanitary sewer collection and treatment system. Grease traps also serve to collect solids that settle, generated by and from activities that subject Users to this section, prior to the water exiting the trap and entering the sanitary sewer collection

and treatment system. Grease traps and interceptors are sometimes referred to herein as "grease interceptors."

MINIMUM DESIGN CAPABILITY: means the design features of a grease interceptor and its ability or volume required to effectively intercept and retain greases and settled solids from grease-laden wastewaters discharged to the public sanitary sewer.

NON-COOKING ESTABLISHMENTS: means those establishments primarily engaged in the preparation of precooked foodstuffs that do not include any form of cooking: but that may produce a consumable food product in or on a receptacle requiring washing to be reused.

ON-SITE GREASE INTERCEPTOR TREATMENT (SOMETIMES "ONSITE TREATMENT"): means mechanisms or procedures utilized by a User to treat grease interceptor contents on the User's site, followed by the reintroduction of such treated wastewater back into the interceptor. On-site grease interceptor treatment may only be accomplished by a User if the User or the User's contract service provider is licensed by St. Charles County and permitted by the St. Louis Metropolitan Sewer District as a septage management firm or service provider.

PROGRAM ACKNOWLEDGEMENT CERTIFICATE: means program confirmation documentation issued by the Director. The User is required to keep Program Acknowledgement Certificate on premises and produce it upon request of the City of St. Peters.

SERVICE PROVIDER: means any third party not in the employment of the User that performs maintenance, repair, and other services on a User's grease interceptor at the User's directive.

USER: shall mean any person, including those located outside of jurisdictional limits of the City who contribute, causes, or permits the contribution or discharge of wastewater into the POTW, including persons who contribute such wastewater from mobile sources, such as those who discharge hauled wastewater. Users include property owners who provide common interceptors for one or more independent establishments, including tenants.

- C. Grease interceptor installation, maintenance, record keeping, and grease removal.
 - (1) Grease interceptors shall be installed and maintained at the User's expense, when a User operators a food service establishment. Grease interceptors may be required in noncooking or cold dairy and frozen foodstuffs establishments and other industrial or commercial establishments when the establishment generates wastewater containing fat or grease and the director determines an interceptor is necessary to prevent contribution or accumulation of grease to the sanitary sewer collection and treatment system. Upon notification by the Director or designee that the User is subject to the terms of an enforcement action, said user shall not allow wastewater discharge concentration from subject grease interceptor to exceed an establishment action level of 200 milligrams per liter, expressed as Hexane Extractable Material. All grease interceptors shall be of a type, design, and capacity approved by the director and shall be readily and easily accessible for maintenance and repair, including cleaning and for city inspection. All grease interceptors shall be serviced and emptied of accumulated waste content as required in order to maintain minimum design capability or effective volume of the grease interceptor, but not less often than every ninety (90) days or as permitted in a valid program modification. Users who are required to pass wastewater through a grease interceptor shall:
 - a. Provide for a minimum hydraulic retention time of 24 minutes at actual peak flow between the influent and effluent baffles, with twenty-five percent (25%) of the total volume of the grease interceptor being allowed for any food-derived solids to settle or accumulate and floatable grease derived materials to rise and accumulate, identified hereafter as a solids blanket and grease cap respectively.
 - b. Remove any accumulated grease cap and solids blanket as required, but at intervals of not longer than ninety (90) days at the user's expense, or in accordance with a valid program modification or other director's requirements. Grease interceptors shall be kept free of inorganic solid materials, such as grit, rocks, gravel, sand, eating utensils, cigarettes, shells, towels, rags, etc., which could settle into this solids blanket and thereby reduce the effective volume of the grease interceptor.
 - If the User performs on-site grease interceptor treatment pursuant to a modification granted under 710.210(5) below, User shall
 - Prior to commencement of Onsite Treatment obtain written approval by and from the Director of all processes utilized in said Onsite Treatment.
 - If any pumped wastes or other materials removed from the grease interceptor are treated in any fashion on-site and reintroduced back into the grease interceptor as an activity of such on-site treatment, the user shall meet the criteria stated below.
 - 3. Attain and adhere to the criteria listed below:
 - After 30 minutes of settling time, not more than 3.0 ml/L of settlable solids, as measured in a 1 liter Imhoff cone shall be allowed, and;

- b. Within and not more than 24 hours after onsite grease interceptor servicing, not more than 2" (inches) of settlable solids and/or grease shall be allowed to have accumulated therein as a result of said operations.
 - c. Any tanks, tankage, or vessel(s) associated with a modification shall be empty upon arrival at the initial FSE user site for which this modification is intended to be applied.
- d. Operate and maintain the grease interceptor to achieve and consistently maintain any applicable grease action level. "Consistent" shall mean any wastewater sample taken from such grease interceptor must meet the terms of numerical limit attainment described in subsection (c)(1). If a User documents that conditions exist ("space constraints") on their establishment site that limit the ability to locate a grease interceptor on the exterior of the establishment, the User may request an interior location for the interceptor. Such request shall contain the following information:
 - Location of public sewer main and easement in relation to available exterior space outside building.
 - 2. Existing plumbing layout at or in a site.
 - A Statement of Understanding, signed by the User or authorized agent, acknowledging and accepting conditions Director may place on permitting an identified interior location. Conditions may include requirements to use alternative mechanisms, devices, procedures, or operations relative to an interior location.
 - 4. Such other information as may be required by the Director.
- e. The use of biological or other additives as a grease degradation or conditioning agent is permissible only upon prior written approval of the director. Any User using biological or other additives shall maintain the trap or interceptor in such a manner that attainment of any grease wastewater, action level, solids blanket or grease cap criteria, goal or directive, as measured from the grease interceptor outlet or interior, is consistently achieved.

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- f. The use of automatic grease removal systems is permissible only upon prior written approval of the Director and the City's Building Inspector. Any user using a grease interceptor located on the interior of the site shall be subject to any operational requirements set forth by the City of St. Peters. Any User using this equipment shall operate the system in such a manner that attainment of the grease wastewater discharge limit, as measured from the unit's outlet, is consistently achieved as required by the Director.
- g. The Director may make determinations of grease interceptor adequacy need, design, appropriateness, application, location, modification(s), and conditional usage based on review of all relevant information regarding grease interceptor performance, facility site and building plan review by all regulatory reviewing agencies and may require repairs to, or modification or replacement of grease interceptors.

- (2) The user shall maintain a written record of grease interceptor maintenance for three years. All such records will be available for inspection by the city at all times. These records shall include:
- a. FSE name and physical location
- b. Date of grease interceptor service
- c. Time of grease interceptor service
- d. Name of grease interceptor service company
- Name and signature of grease interceptor service company agent performing said service
- Established service frequency and type of service: full pump out, partial pump out, on-site treatment (type of nature of operations)
- g. Number and size of each grease interceptor serviced at FSE location
- Approximated amount, per best professional judgment of contract service provider, of grease and solids removed from each grease interceptor
- i. Total volume of waste removed from each grease interceptor
- j. Destination of removed wastes, food solids, and wastewater disposal
- k. Signature and date of FSE personnel confirming service completion
- 1. Such other information as required by Director
- (3) No nongrease-laden sources are allowed to be connected to sewer lines intended for grease interceptor service.
- (4) Access manholes shall have an installed diameter of 24 inches, a maximum weight of 50 pounds, and shall be provided over each chamber, interior baffle wall, and each sanitary tee. The access penetrations, commonly referred to as "risers" into the grease interceptor shall also be, at a minimum, 24 inches in diameter. The access manholes shall extend at least to finished grade and be designed and maintained to prevent water inflow or infiltration. The manholes shall also have readily removable covers to facilitate inspection, grease removal, and wastewater sampling activities.



- (5) A User may request a modification to the following requirements of this ordinance. Such request for a modification shall be in writing and shall provide the information set forth below.
- a. The user's grease interceptor pumping frequency. The Director may modify the 90-day grease interceptor pump out frequency when the User provides data, and performance criteria relative to the overall effectiveness of a proposed alternate and such can be substantiated by the Director. Proposed alternatives may include: grease interceptor pumping or maintenance matters, bioremediation as a complement to Grease interceptor maintenance, Grease interceptor selection and sizing criteria, onsite grease interceptor maintenance, and specialized ware washing procedures.
- b. Grease interceptor maintenance and service procedures. The Director may modify the method(s) or procedure(s) utilized service a grease interceptor when the User

provides data, and performance criteria related to the overall effectiveness of a proposed alternate method or procedure and such can be substantiated by the Director. If a modification to maintenance and service procedures is permitted it shall be a conditional discharged permit approval.

- c. Any modification must be approved by the Director in written form before implementation by the User or the user's designated service provider.
- D. Fees. Users shall pay an annual fee of \$150.00 for program administration, inspection and record keeping.

SECTION NO. 2. Savings Clause.

Nothing contained herein shall in any manner be deemed or construed to alter, modify, supersede, supplant or otherwise nullify any other Ordinance of the City or the requirements thereof whether or not relating to or in any manner connected with the subject matter hereof, except as expressly set forth herein.

SECTION NO. 4. Severability Clause.

If any term, condition, or provision of this Ordinance shall, to any extent, be held to be invalid or unenforceable, the remainder hereof shall be valid in all other respects and continue to be effective and each and every remaining provision hereof shall be valid and shall be enforced to the fullest extent permitted by law, it being the intent of the Board of Aldermen that it would have enacted this Ordinance without the invalid or unenforceable provisions. In the event of a subsequent change in applicable law so that the provision which had been held invalid is no longer invalid, said provision shall thereupon return to full force and effect without further action by the City and shall thereafter be binding.

SECTION NO. 5. Effective Date.

This Ordinance shall take effect and be in force from and after its passage by the Board of Aldermen and its approval by the Mayor of the City of St. Peters.

Read two times, passed, and approved this 12th day of June 2008.

Rrending Officer and as Mayor

Len Pagano, Mayor

Rhonda Fleming Shaw, City Clerk

FOG Best Management Practices



BMPs	Reasoning	Benefits
Train all staff on BMPs	People are more willing to support an effort if they understand the reasons behind it.	Trained staff will be more likely to implement BMPs and work to reduce grease discharges to the sewer.
Post "No Grease" signs above sinks and on the front of dishwashers.	Signs serve as a constant reminder to staff working in kitchens.	Reminders help minimize grease discharge to the sewer or grease removal device.
Check grease interceptor solids depth routinely. The combined thickness of the floating grease and the bottom solids should not be more than 25% of the total interceptor depth.	Grease interceptors will not meet performance standards when solids and floating grease levels exceed 25%.	This will keep grease interceptor working at peak performance.
Collect and recycle waste cooking oil.	These actions reduce grease loading on grease removal devices and the sewer.	This will reduce cleaning frequency and maintenance costs for grease removal devices and reduce the amount of grease entering the drain.
"Dry wipe" pots, pans, and kitchen equipment before cleaning.	"Dry wiping" will reduce the grease loading on grease removal devices and the sewer.	This will reduce cleaning frequency and maintenance costs for grease removal devices and reduce the amount of grease entering the drain.
Maintain a routine grease trap cleaning schedule.	If grease traps are not routinely cleaned, they do not work properly and do not prevent grease from entering the sewer.	This reduces the amount of grease entering the drain and protects sewer from grease blockages and overflows.
No hot water over 140F	Temperatures in excess of 140F in any sink will dissolve grease and send it to the sewer.	By reducing water temperature you will save costs for heating that water.
Use absorbents, such as paper towels and cat litter, to pick up oil and grease spills before mopping.	Decreases the amount of grease that will be put down the drain.	The amount of grease entering the drain is reduced, which protects the sewer system from grease blockages and overflows.
Do not use emulsifiers or solvents other than typical dishwashing detergents.	Emulsifiers and solvents will break down grease causing a problem downstream in the sewer.	Allows for proper removal of grease.

For questions or concerns please contact

Joe Morris

C-5

Utilities Environmental Compliance

636-477-6600 or

636-278-2244, ext. 1278

MISSOURI

Fats, Oils

And Grease

Program

FOG

City of St. Peters P.O. Box 9 St. Peters, MO 63376 (636) 477-6600 x1278 5.5

Page 2 of 2

The City of St. Peters Utilities Department works hard to maintain its collection system and to keep the sanitary sewers free of FOG (fats, oils and grease). FOG from restaurants has become a significant problem for the wastewater collections system.

Grease is present in such things as:

- Baking Goods
- · Cooking oil
- Shortening
- Meat fats
- Dairy Products
- Lard
- Food Scraps
- Butter
- Sauces

Which operations create the most grease discharge?

 Dishwashing and cleaning operations generate the most grease discharges. For example pre-rinse stations, pot washing sinks etc.

What kinds of issues are caused by grease?

Greasy solids build up deposits on the internal drain lines and public sewers, reducing the sewer capacity. These deposits can breakaway and cause the backup of downstream sewers.

Grease accumulates in wet wells and pumping stations and in the bends of sewer pipes can cause blockage and failure of the pumps.

Grease obstructions can lead to foul odors and sewage backups into homes and businesses.

Are enzymes and emulsifiers a good way to treat grease?

Enzymes and emulsifiers are not approved to be used in the City of St. Peters. These substances break down the grease which then passes down the line and resolidifies causing problems elsewhere.

What can I do to handle grease generated by my facility responsibly and prepare for inspections?

- Grease traps and interceptors must be cleaned a minimum of every 90 days.
- Document the cleaning information on the Grease Interceptor Cleaning Record Log provided by this office.
- Keep outdoor grease containers covered and away from storm drains.
- Educate staff on best management practices.
- Put up "No Grease" signs above sinks to remind staff.
- Bacteria, degreasers, enzymes or similar substances which act to temporarily emulsify or suspend oil or grease shall not be introduced into any interceptor designed to capture and retain oil and grease.
- Reference City code 710.210 for further information.

Timothy G. Myers, PE Director of Utilities (636) 477-6600, ext. 1337

November 20, 2012

Mr. Paul Morris Water Pollution Control Unit Chief Department of Natural Resources 7545 S. Lindbergh, Suite, 210 St. Louis, MO 63125

Dear Mr. Morris;

In accordance with our NPDES Permit, MO-0030970, the City of St. Peters is submitting with our November NPDES Discharge Monitoring Report; the following information which addresses measures taken to locate and eliminate sources of infiltration and inflow into the collection system.

Public Collection System I & I

Five (5) spot repairs were completed this year that had significant joint defects (at least ½ pipe displacement):

Monique Court – pipe failure Soutee Drive – pipe failure Burning Leaf Drive – pipe failure Mill Spring Lane – pipe failure Bluegrass Lane – Fernco failure

The City will be finalizing a contract to rehabilitate 13 manholes on our trunkline along Dardenne Creek from Brown Road pump station to I-70. The manholes will be lined by either epoxy resin or corrosion resistant mortar. The project will be completed within 60 days of the notice to proceed.

The cost of this project is \$40,837.50.

Pipe Inspections

Approximately 45.8-miles (241,889-ft) of sanitary sewer pipe were inspected for defects and/or I&I sources. This equates to 20% of our system which meets our goal of camering the entire system within a 5 year period.

Private I & I Sources

As part of the City's Lateral Insurance Program, 298 laterals were inspected, and of those 298 laterals, 102 laterals were repaired or replaced. The breakdown of these laterals is shown below. Each of these laterals was CCTV inspected for defects and I & I.

Туре	Inspected	Repaired or Replaced
New Home Construction	197	7
Walk-in (Reactive)	47	45
Targeted Areas	54	50
TOTAL	298	102

The City budgets approximately \$500,000/yr for private lateral inspections and repairs.

If you have any questions regarding this year's I&I report please feel free contact me at 636-477-6600, extension 1337.

Sincerely,

Timothy G. Myers, P.E. Director of Utilities

Cc: Bill Malach, Manager Water Environment Services

CHAPTER 715: UNIFORM REQUIREMENTS FOR DIRECT AND INDIRECT CONTRIBUTORS INTO THE WASTE WATER COLLECTION AND TREATMENT SYSTEM

ARTICLE I. GENERAL PROVISIONS

SECTION 715.010: OBJECTIVES

- A. The objectives of this Chapter are:
 - 1. To prevent the introduction of pollutants into the municipal waste water system which will interfere with the operation of the system or contaminate the resulting sludge;
 - To prevent the introduction of pollutants into the municipal waste water system which will pass through the system, inadequately treated, into receiving waters or the atmosphere or otherwise be incompatible with the system;
 - To improve the opportunity to recycle and reclaim waste waters and sludges from the system; and
 - To provide for equitable distribution of the cost of the municipal waste water system.
- B. This Chapter provides for the regulation of direct and indirect contributors to the municipal waste water system through the issuance of permits to certain non-domestic users and through enforcement of general requirements for the other users, authorizes monitoring and enforcement activities, requires user reporting, assumes that existing customer's capacity will not be preempted, and provides for the setting of fees for the equitable distribution of costs resulting from the program established herein.
- C. This Chapter shall apply to the City of St. Peters and to persons outside the City of St. Peters who are, by contract or agreement with the City of St. Peters, users of the City of St. Peters' POTW. Except as otherwise provided herein, the Manager of the City of St. Peters' POTW shall administer, implement, and enforce the provisions of this Chapter. (R.O. 2007 §715.010; Ord. No. 646 §1.1, 2-26-81)

SECTION 715.020: DEFINITIONS AND ABBREVIATIONS

A. Unless the context specifically indicates otherwise, the following terms and phrases, as used in this Chapter, shall have the meanings hereinafter designated: ACT OR THE ACT: The Federal Water Pollution Control Act, also known as the Clean Water Act, as amended, 33 U.S.C. 1251, et seq.

APPROVAL AUTHORITY: The Director in an NPDES State with an approved State pretreatment program and the Administrator of the EPA in a non-NPDES State or NPDES State without an approved State pretreatment program.

AUTHORIZED REPRESENTATIVE OF INDUSTRIAL USER: An authorized representative of an industrial user may be:

- A principal executive officer of at least the level of Vice President, if the industrial user is a corporation;
- A general partner or proprietor if the industrial user is a partnership or proprietorship, respectively; or
- A duly authorized representative of the individual designated above if such representative is responsible for the overall operation of the facilities from which the indirect discharge originates.

BIOCHEMICAL OXYGEN DEMAND (BOD): The quantity of oxygen utilized in the biochemical oxidation of organic matter under standard laboratory procedure, five (5) days at twenty degrees Centigrade (20°C) expressed in terms of weight and concentration (milligrams per liter (mg/l)).

BUILDING SEWER: A sewer conveying waste water from the premises of a user to the POTW.

CATEGORICAL STANDARDS: National Categorical Pretreatment Standards or Pretreatment Standard.

CITY: The City of St. Peters, Missouri, or the Board of Aldermen of the City of St. Peters.

COMPATIBLE POLLUTANT: Biochemical oxygen demand, suspended solids, pH and fecal coliform bacteria; plus any additional pollutants identified in the publicly owned treatment works' NPDES permit, where the publicly owned treatment work is designed to treat such pollutants and, in fact, does treat such pollutants to the degree required by the POTW's NPDES permit.

CONTROL AUTHORITY: The term "control authority" shall refer to the "approval authority", defined hereinabove; or the Manager if the City has an approved pretreatment program under the provisions of 40 CFR, 403.11.

COOLING WATER: The water discharged from any use such as air-conditioning, cooling or refrigeration, or to which the only pollutant added is heat.

DIRECT DISCHARGE: The discharge of treated or untreated waste water directly to the waters of the State of Missouri.

ENVIRONMENTAL PROTECTION AGENCY, OR EPA: The U.S. Environmental Protection Agency, or where appropriate the term may also be used as a designation for the Administrator or other duly authorized official of said agency.

GRAB SAMPLE: A sample which is taken from a waste stream on a one-time basis with no regard to the flow in the waste stream and without consideration of time.

HOLDING TANK WASTE: Any waste from holding tanks such as vessels, chemical toilets, campers, trailers, septic tanks, and vacuum-pump tank trucks.

INCOMPATIBLE POLLUTANT: All pollutants other than compatible pollutants as defined in this Section.

INDIRECT DISCHARGE: The discharge or the introduction of non-domestic pollutants from any source regulated under Section 307(b) or (c) of the Act, (33 U.S.C. 1317), into the POTW (including holding tank waste discharged into the system).

INDUSTRIAL USER: A source of indirect discharge which does not constitute a "discharge of pollutants" under regulations issued pursuant to Section 402, of the Act. (33 U.S.C. 1342).

INTERFERENCE: The inhibition or disruption of the POTW treatment process or operations which contributes to a violation of any requirement of the City's NPDES permit. The term includes prevention of sewage sludge use or disposal by the POTW in accordance with 405 of the Act, (33 U.S.C. 1345) or any criteria, guidelines or regulations developed pursuant to the Solid Waste Disposal Act (SWDA), the Clean Air Act, the Toxic Substances Control Act, or more stringent State criteria (including those contained in any State sludge management plan prepared pursuant to Title IV of SWDA) applicable to the method of disposal or use employed by the POTW.

MANAGER: The person designated by the City to supervise the operation of the publicly owned treatment works and who is charged with certain duties and responsibilities by this Chapter, or his/her duly authorized representative.

NATIONAL CATEGORICAL PRETREATMENT STANDARD OR PRETREATMENT STANDARD: Any regulation containing pollutant discharge limits promulgated by the EPA in accordance with Section 307(b) and (c) of the Act (33 U.S.C. 1347) which applies to a specific category of industrial users.

NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM OR NPDES PERMIT: A permit issued pursuant to Section 402 of the Act (33 U.S.C. 1342).

NATIONAL PROHIBITIVE DISCHARGE STANDARD OR PROHIBITIVE DISCHARGE STANDARD: Any regulation developed under the authority of 307(b) of the Act and 40 CFR, Section 403.5.

NEW SOURCE: Any source, the construction of which is commenced after the publication of proposed regulations prescribing a Section 307(c) (33 U.S.C. 1317) categorical pretreatment standard which will be applicable to such source, if such standard is thereafter promulgated within one hundred twenty (120) days of proposal in the Federal Register. Where the standard is promulgated later than one hundred twenty (120) days after proposal, a new source means any source, the construction of which is commenced after the date of promulgation of the standard.

PERSON: Any individual, partnership, co-partnership, firm, company, corporation, association, joint stock company, trust, estate, governmental entity or any other legal entity, or their legal representatives, agents or assigns. The masculine gender shall include the feminine, the singular shall include the plural where indicated by the context.

pH: The logarithm (base 10) of the reciprocal of the concentration of hydrogen ions expressed in grams per liter of solution.

POLLUTANT: Any dredged spoil, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discharged equipment, rock, sand, cellar dirt and industrial, municipal, and agricultural waste discharged into water.

POLLUTION: The manmade or man-induced alteration of the chemical, physical, biological, and radiological integrity of water.

POTW TREATMENT PLANT: That portion of the POTW designed to provide treatment to waste water.

PRETREATMENT OR TREATMENT: The reduction of the amount of pollutants, the elimination of pollutants, or the alteration of the nature of pollutant properties in waste water to a less harmful state prior to or in lieu of discharging or otherwise introducing such pollutants into a POTW. The reduction or alteration can be obtained by physical, chemical or biological processes, or process changes or other means, except as prohibited by 40 CFR Section 403.6(d).

PRETREATMENT REQUIREMENTS: Any substantive or procedural requirement related to pretreatment, other than a National Pretreatment Standard imposed on an industrial user.

PUBLICLY OWNED TREATMENT WORKS (POTW): A treatment works as defined by Section 212 of the Act, (33 U.S.C. 1292) which is owned in this instance by the City. This definition includes any sewers that convey waste water to the POTW treatment plant, but does not include pipes, sewers or other conveyances not connected to a facility providing treatment. For the purposes of this Chapter, "POTW" shall also include any sewers that convey waste waters to the POTW from persons outside the City of St. Peters who are, by contract or agreement with the City of St. Peters, users of the City of St. Peters' POTW.

SHALL: Is mandatory; MAY: Is permissive.

SIGNIFICANT INDUSTRIAL USER: Any industrial user of the City's waste water disposal system who:

- Has a discharge flow of twenty-five thousand (25,000) gallons or more per average work day,
- Has in his/her wastes toxic pollutants as defined pursuant to Section 307 of the Act or State Statutes and rules, or
- 3. Is found by the City, (State Control Agency) or the U.S. Environmental Protection Agency (EPA) to have significant impact, either singly or in combination with other contributing industries, on the waste water treatment system, the quality of sludge, the system's effluent quality, or air emissions generated by the system.

STANDARD INDUSTRIAL CLASSIFICATION (SIC): A classification pursuant to the Standard Industrial Classification Manual issued by the Executive Office of the President, Office of Management and Budget, 1972.

STATE: State of Missouri.

STORMWATER: Any flow occurring during or following any form of natural precipitation and resulting therefrom.

SUSPENDED SOLIDS: The total suspended matter that floats on the surface of, or is suspended in, water, waste water or other liquids, and which is removable by laboratory filtering.

TOXIC POLLUTANT: Any pollutant or combination of pollutants listed as toxic in regulations promulgated by the Administrator of the Environmental Protection Agency under the provision of CWA 307(a) or other Acts.

USER: Any person who contributes, causes or permits the contribution of waste water into the City's POTW.

WASTE WATER: The liquid and water-carried industrial or domestic wastes from dwellings, commercial buildings, industrial facilities, and institutions, together with any ground water, surface water, and stormwater that may be present, whether treated or untreated, which is contributed into or permitted to enter the POTW.

WASTE WATER CONTRIBUTION PERMIT: As set forth in Article IV of this Chapter.

WATERS OF THE STATE: All streams, lakes, ponds, marshes, watercourses, waterways, wells, springs, reservoirs, aquifers, irrigation systems, drainage systems and all other bodies or accumulations of water, surface or underground, natural or artificial, public or private, which are contained within, flow through, or border upon the State or any portion thereof.

- B. Abbreviations. The following abbreviations shall have the designated meanings:
 - 1. BOD. Biochemical oxygen demand.
 - 2. CFR. Code of Federal Regulations.
 - 3. COD. Chemical oxygen demand.
 - 4. EPA. Environmental Protection Agency.
 - 5. 1. Liter.
 - 6. mg. Milligrams.
 - 7. mg/l. Milligrams per liter.
 - 8. NPDES. National Pollutant Discharge Elimination System.
 - 9. POTW. Publicly owned treatment works.
 - 10. SIC. Standard Industrial Classification.
 - 11. SWDA. Solid Waste Disposal Act, 42 U.S.C. 6901, et seq.
 - 12. USC. United States Code.
 - 13. TSS. Total suspended solids. (R.O. 2007 §715.020; CC 1979 §27-30.1; Ord. No. 646 §§1.2--1.3, 2-26-81)

ARTICLE II. REGULATIONS

SECTION 715.030: GENERAL DISCHARGE PROHIBITIONS

- A. No user shall contribute or cause to be contributed, directly or indirectly, any pollutant or waste water which will interfere with the operation or performance of the POTW. These general prohibitions apply to all such users of a POTW whether or not the user is subject to National Categorical Pretreatment Standards or any other national, State, or local pretreatment standards or requirements. A user may not contribute the following substances to any POTW:
 - Any liquids, solids or gases which by reason of their nature or quantity are, or
 may be, sufficient either alone or by interaction with other substances to cause fire or
 explosion or be injurious in any other way to the POTW or to the operation of the
 POTW. At no time shall two (2) successive readings on an explosion hazard meter, at the
 point of discharge into the system (or at any point in the system), be more than five

percent (5%) nor any single reading over ten percent (10%) of the Lower Explosive Limit (LEL) of the meter. Prohibited materials include, but are not limited to, gasoline, kerosene, naphtha, benzene, toluene, xylene, ethers, alcohols, ketones, aldehydes, peroxides, chlorates, perchlorates, bromates, carbides, hydrides and sulfides and any other substances which the City, the State or EPA has notified the user is a fire hazard or a hazard to the system.

- 2. Solid or viscous substances which may cause obstruction to the flow in a sewer or other interference with the operation of the waste water treatment facilities such as, but not limited to: grease, garbage with particles greater than one-half (½) inch in any dimension, animal guts or tissues, paunch manure, bones, hair, hides or fleshings, entrails, whole blood, feathers, ashes, cinders, sand, spent lime, stone or marble dust, metal, glass, straw, shavings, grass clippings, rags, spent grains, spent hops, waste paper, wood, plastics, gas, tar, asphalt residues, residues from refining or processing of fuel or lubricating oil, mud or glass grinding or polishing wastes.
- 3. Any waste water having a pH less than 5.0 or pH greater than 11.5, unless the POTW is specifically designed to accommodate such waste water, or waste water having any other corrosive property capable of causing damage or hazard to structures, equipment, and/or personnel of the POTW.
- 4. Any waste water containing toxic pollutants in sufficient quantity, either singly or by interaction with other pollutants, to injure or interfere with any waste water treatment process, constitute a hazard to humans or animals, create a toxic effect in the receiving waters of the POTW, or to exceed the limitation set forth in a Categorical Pretreatment Standard. A toxic pollutant shall include but not be limited to any pollutant identified pursuant to Section 307(a) of the Act.
- Any noxious or malodorous liquids, gases, or solids which either singly or by interaction with other wastes are sufficient to create a public nuisance or hazard to life or are sufficient to prevent entry into the sewers for their maintenance and repair.
- 6. Any substance which may cause the POTW's effluent or any other product of the POTW such as residues, sludges, or scums, to be unsuitable for reclamation and reuse or to interfere with the reclamation process where the POTW is pursuing a reuse and reclamation program. In no case shall a substance discharged to the POTW cause the POTW to be in non-compliance with sludge use or disposal criteria, guidelines or regulations developed under Section 405 of the Act; any criteria, guidelines, or regulations affecting sludge use or disposal developed pursuant to the Solid Waste Disposal Act, the Clean Air Act, the Toxic Substances Control Act, or State criteria applicable to the sludge management method being used.
- Any substance which will cause the POTW to violate its NPDES and/or State disposal system permit or the receiving water quality standards.

- Any waste water with objectionable color not removed in the treatment process, such as, but not limited to, dye wastes and vegetable tanning solutions.
- 9. Any waste water having a temperature which will inhibit biological activity in the POTW treatment plant resulting in interference, but in no case waste water with a temperature at the introduction into the POTW which exceeds forty degrees Centigrade (40°C)(one hundred four degrees Fahrenheit (104°F)) unless the POTW treatment plant is designed to accommodate such temperature.
- 10. Any pollutants, including oxygen demanding pollutants (BOD, etc.) released at a flow and/or pollutant concentration which a user knows or has reason to know will cause interference to the POTW. In no case shall a slug load have a flow rate or contain concentration or qualities of pollutants that exceed for any time period longer than fifteen (15) minutes more than five (5) times the average twenty-four (24) hour concentration, quantities, or flow during normal operation.
- 11. Any waste water containing any radioactive wastes or isotopes of such halflife or concentration as may exceed limits established by the Manager in compliance with applicable State or Federal regulations.
- Any waste water which causes a hazard to human life or creates a public nuisance.
- B. When the Manager determines that a user(s) is contributing to the POTW, any of the above enumerated substances in such amounts as to interfere with the operation of the POTW, the Manager shall:
 - 1. Advise the user(s) of the impact of the contribution on the POTW; and
 - 2. Develop effluent limitation(s) for such user to correct the interference with the POTW. (R.O. 2007 §715.030; CC 1979 §27-30.2; Ord. No. 646 §2.1, 2-26-81)

SECTION 715.040: FEDERAL CATEGORICAL PRETREATMENT STANDARDS

Upon the promulgation of the Federal Categorical Pretreatment Standard for a particular industrial subcategory, the Federal Standard, if more stringent than limitations imposed under this Chapter for sources in that subcategory, shall immediately supersede the limitations imposed under this Chapter. The Manager shall notify all affected users of the applicable reporting requirements under 40 CFR, Section 403.12. (R.O. 2007 §715.040; CC 1979 §27-30.3; Ord. No. 646 §2.2, 2-26-81)

SECTION 715.050: MODIFICATION OF FEDERAL CATEGORICAL PRETREATMENT STANDARDS

Where the City's waste water treatment system achieves consistent removal of pollutants limited by Federal Pretreatment Standards, the City may apply to the approval authority for modification of specific limits in the Federal Pretreatment Standards. "Consistent removal" shall mean reduction in the amount of a pollutant or alteration of the nature of the pollutant by the waste water treatment system to a less toxic or harmless state in the effluent which is achieved by the system in ninety-five percent (95%) of the samples taken when measured according to the procedures set forth in Section 403.7(c)(2) of (Title 40 of the Code of Federal Regulations, Part 403)—"General Pretreatment Regulations for Existing and New Sources of Pollution" promulgated pursuant to the Act. The City may modify pollutant discharge limits in the Federal Pretreatment Standards if the requirements contained in 40 CFR, Part 403, Section 403.7, are fulfilled and prior approval from the approval authority is obtained. (R.O. 2007 §715.050; CC 1979 §27-30.4; Ord. No. 646 §2.3, 2-26-81)

SECTION 715.060: STATE REQUIREMENTS

State requirements and limitations on discharges shall apply in any case where they are more stringent than Federal requirements and limitations or those in this Chapter. (R.O. 2007 §715.060; CC 1979 §27-30.5; Ord. No. 646 §2.4, 2-26-81)

SECTION 715.070: CITY'S RIGHT OF REVISION

The City reserves the right to establish by ordinance more stringent limitations or requirements on discharges to the waste water disposal system if deemed necessary to comply with the objectives presented in <u>Section 715.010</u> of this Chapter. (R.O. 2007 §715.070; CC 1979 §27-30.6; Ord. No. 646 §2.5, 2-26-81)

SECTION 715.080: EXCESSIVE DISCHARGE

No user shall ever increase the use of process water or, in any way, attempt to dilute a discharge as a partial or complete substitute for adequate treatment to achieve compliance with the limitations contained in the Federal Categorical Pretreatment Standards, or in any other pollutant-specific limitation developed by the City or State. (Comment: Dilution may be an acceptable means of complying with some of the prohibitions set forth in Section 715.030, e.g., the pH prohibition). (R.O. 2007 §715.080; CC 1979 §27-32.1; Ord. No. 646 §2.6, 2-26-81)

SECTION 715.090: ACCIDENTAL DISCHARGES

A. Each user shall provide protection from accidental discharge of prohibited materials or other substances regulated by this Chapter. Facilities to prevent accidental discharge of prohibited materials shall be provided and maintained at the owner or user's own cost and expense. Detailed plans showing facilities and operating procedures to provide this protection shall be submitted to the City for review, and shall be approved by the City before construction of the facility. All existing users shall complete such a plan by January 1, 1983. No user who commences contribution to the POTW after the effective date of this Chapter shall be permitted to introduce pollutants into the system until accidental discharge procedures have been approved by the City. Review and approval of such plans and operating procedures shall not relieve the industrial user from the responsibility to modify the user's facility as necessary to meet the requirements of this Chapter. In the case of an accidental discharge, it is the responsibility of the user to immediately telephone and notify the POTW of the incident. The notification shall include location of discharge, type of waste, concentration and volume, and corrective actions.

- B. Written Notice. Within five (5) days following an accidental discharge, the user shall submit to the Manager a detailed written report describing the cause of the discharge and the measures to be taken by the user to prevent similar future occurrences. Such notification shall not relieve the user of any expense, loss, damage, or other liability which may be incurred as a result of damage to the POTW, fish kills, or any other damage to person or property; nor shall such notification relieve the user of any fines, civil penalties, or other liability which may be imposed by this Article or other applicable law.
- C. Notice To Employees. A notice shall be permanently posted on the user's bulletin board or other prominent place advising employees whom to call in the event of a dangerous discharge. Employers shall insure that all employees who may cause or suffer such a dangerous discharge to occur are advised of the emergency notification procedure. (R.O. 2007 §715.090; CC 1979 §27-32.2; Ord. No. 646 §2.7, 2-26-81)

ARTICLE III. COST RECOVERY

SECTION 715.100: PURPOSE OF COST RECOVERY

It is the purpose of this Article to provide for the recovery of costs from users of the City's waste water disposal system for the implementation of the program established herein. The applicable charges or fees shall be set forth in the City's schedule of charges and fees. (R.O. 2007 §715.100; CC 1979 §27-38(a); Ord. No. 646 §3.1, 2-26-81)

SECTION 715.110: CHARGES

- A. The City may apply charges which may include:
 - Reimbursement of costs of setting up and operating the City's pretreatment program;
 - Recovery of costs for monitoring, inspections and surveillance procedures;
 - Recovery of costs for reviewing accidental discharge procedures and construction;

- Cost of permit applications;
- 5. Cost of filing appeals;
- Cost of consistent removal (by the City) of pollutants otherwise subject to Federal Pretreatment Standards; and
- Recovery of other costs as the City may incur to carry out the requirements contained herein.
- B. These charges relate solely to the matters covered by this Chapter and are separate from all other fees chargeable by the City. (R.O. 2007 §715.110; CC 1979 §27-38(b); Ord. No. 646 §3.2, 2-26-81)

ARTICLE IV. ADMINISTRATION

SECTION 715.120: WASTE WATER DISCHARGERS

It shall be unlawful to discharge without a City permit to any natural outlet within the City of St. Peters, Missouri, or in any area under the jurisdiction of said City of St. Peters, and/or to the POTW any waste water except as authorized by the Manager in accordance with the provisions of this Chapter. (R.O. 2007 §715.120; CC 1979 §27-39; Ord. No. 646 §4.1, 2-26-81)

SECTION 715.130: WASTE WATER CONTRIBUTION PERMITS

- A. General Permits. All significant users proposing to connect to or to contribute to the POTW shall obtain a waste water discharge permit before connecting to or contributing to the POTW. All existing significant users connected to or contributing to the POTW shall obtain a waste water contribution permit within one hundred eighty (180) days after the effective date of this Chapter, April 1, 1981.
- B. Permit Application. Users required to obtain a waste water contribution permit shall complete and file with the City an application in the form prescribed by the City. Existing users shall apply for a waste water contribution permit within ninety (90) days after the effective date of this Chapter, and proposed new users shall apply at least ninety (90) days prior to connecting to or contributing to the POTW. In support of the application, the user shall submit, in units and terms appropriate for evaluation, the following information:
 - Name, address, and location (if different from the address);
 - SIC number according to the Standard Industrial Classification Manual, Bureau of the Budget, 1972, as amended;

- 3. Waste water constituents and characteristics including but not limited to those mentioned in <u>Article II</u> of this Chapter as determined by a reliable analytical laboratory; sampling and analysis shall be performed in accordance with procedures established by the EPA pursuant to Section 304(g) of the Act and contained in 40 CFR, Part 136, as amended:
 - 4. Time and duration of contribution:
- Average daily and three (3) minute peak waste water flow rates, including daily, monthly and seasonal variations if any;
- Site plans, floor plans, mechanical and plumbing plans and details to show all sewers, sewer connections, and appurtenances by the size, location and elevation;
- 7. Description of activities, facilities and plant processes on the premises including all materials which are or could be discharged;
- 8. Where known, the nature and concentration of any pollutants in the discharge which are limited by any City, State or Federal Pretreatment Standards, and a statement regarding whether or not the pretreatment standards are being met on a consistent basis and if not, whether additional O&M and/or additional pretreatment is required for the user to meet applicable pretreatment standards;
- 9. If additional pretreatment and/or O&M will be required to meet the pretreatment standards; the shortest schedule by which the user will provide such additional pretreatment. The completion date in this schedule shall not be later than the compliance date established for the applicable pretreatment standard:

The following conditions shall apply to this schedule:

- a. The schedule shall contain increments of progress in the form of dates for the commencement and completion of major events leading to the construction and operation of additional pretreatment required for the user to meet the applicable pretreatment standards.
 - b. No increment referred to in Paragraph (a) shall exceed nine (9) months.
- c. Not later than fourteen (14) days following each date in the schedule and the final date for compliance, the user shall submit a progress report to the Manager including, as a minimum, whether or not it complied with the increment of progress to be met on such date and, if not, the date on which it expects to comply with this increment of progress, the reason for delay, and the steps being taken by the user to return the construction to the schedule established. In no event shall more than nine (9) months elapse between such progress reports to the Manager.

- Each product produced by type, amount, process or processes and rate of production;
 - 11. Type and amount of raw materials processed (average and maximum per day);
- 12. Number of type of employees, and hours of operation of plant and proposed or actual hours of operation of pretreatment system; and
- 13. Any other information as may be deemed by the City to be necessary to evaluate the permit application.

The City will evaluate the data furnished by the user and may require additional information. After evaluation and acceptance of the data furnished, the City may issue a waste water contribution permit subject to terms and conditions provided herein.

- C. Permit Modifications. Within nine (9) months of the promulgation of a National Categorical Pretreatment Standard, the waste water contribution permit of users subject to such standards shall be revised to require compliance with such standard within the time frame prescribed by such standard. Where a user, subject to a National Categorical Pretreatment Standard, has not previously submitted an application for a waste water contribution permit as required by Subsection (B), the user shall apply for a waste water contribution permit within one hundred eighty (180) days after the promulgation of the applicable National Categorical Pretreatment Standard. In addition, the user with an existing waste water contribution permit shall submit to the Manager within one hundred eighty (180) days after the promulgation of an applicable Federal Categorical Pretreatment Standard for information required by Paragraphs (8) and (9) of Subsection (B).
- D. Permit Conditions. Waste water discharge permits shall be expressly subject to all provisions of this Chapter and all other applicable regulations, user charges and fees established by the City. Permits may contain the following:
 - The unit charge or schedule of user charges and fees for the waste water to be discharged to a community sewer;
 - 2. Limits on the average and maximum waste water constituents and characteristics;
 - Limits on average and maximum rate and time of discharge or requirements for flow regulations and equalization;
 - Requirements for installation and maintenance of inspection and sampling facilities;
 - Specifications for monitoring programs which may include sampling locations, frequency of sampling, number, types and standards for tests and reporting schedule;
 - Compliance schedules;

- Requirements for submission of technical reports or discharge reports (see Section 715.140);
- 8. Requirements for maintaining and retaining plant records relating to waste water discharge as specified by the City, and affording City access thereto;
- Requirements for notification of the City or any new introduction of waste water constituents or any substantial change in the volume or character of the waste water constituents being introduced into the waste water treatment system;
 - 10. Requirements for notification of slug discharges as per Section 715.200; and
- Other conditions as deemed appropriate by the City to ensure compliance with this Chapter.
- E. Permits Duration. Permits shall be issued for a specified time period, not to exceed five (5) years. A permit may be issued for a period less than a year or may be stated to expire on a specific date. The user shall apply for permit reissuance a minimum of one hundred eighty (180) days prior to the expiration of the user's existing permit. The terms and conditions of the permit may be subject to modification by the City during the term of the permit as limitations or requirements as identified in Article II are modified or other just cause exists. The user shall be informed of any proposed changes in his/her permit at least thirty (30) days prior to the effective date of change. Any changes or new conditions in the permit shall include a reasonable time schedule for compliance.
- F. Permit Transfer. Waste water discharge permits are issued to a specific user for a specific operation. A waste water discharge permit shall not be reassigned or transferred or sold to a new owner, new user, different premises, or a new or changed operation without the approval of the City. Any succeeding owner or user shall also comply with the terms and conditions of the existing permit. (R.O. 2007 §715.130; CC 1979 §§27-39--27-44; Ord. No. 646 §4.2, 2-26-81)

SECTION 715.140: REPORTING REQUIREMENTS FOR PERMITTEE

A. Compliance Date Report. Within ninety (90) days following the date for final compliance with applicable pretreatment standards or, in the case of a new source, following commencement of the introduction of waste water into the POTW, any user subject to pretreatment standards and requirements shall submit to the Manager a report indicating the nature and concentration of all pollutants in the discharge from the regulated process which are limited by pretreatment standards and requirements and the average and maximum daily flow for these process units in the user facility which are limited by such pretreatment standards or requirements. The report shall state whether the applicable pretreatment standards or requirements are being met on a consistent basis and, if not, what additional O&M and/or pretreatment is necessary to bring the user into compliance with the applicable pretreatment standards or requirements. This statement shall be signed by an authorized representative of the industrial user, and certified to by a qualified professional.

B. Periodic Compliance Reports.

- 1. Any user subject to a pretreatment standard, after the compliance date of such pretreatment standard, or, in the case of a new source, after commencement of the discharge into the POTW, shall submit to the Manager during the months of June and December, unless required more frequently in the pretreatment standard or by the Manager, a report indicating the nature and concentration, of pollutants in the effluent which are limited by such pretreatment standards. In addition, this report shall include a record of all daily flows which during the reporting period exceeded the average daily flow reported in Section 715.130(B)(5) of this Code. At the discretion of the Manager and in consideration of such factors as local high or low flow rates, holidays, budget cycles, etc., the Manager may agree to alter the months during which the above reports are to be submitted.
- 2. The Manager may impose mass limitations on users which are using dilution to meet applicable pretreatment standards or requirements, or in other cases where the imposition of mass limitations are appropriate. In such cases, the report required by Subparagraph (1) of this Subsection shall indicate the mass of pollutants regulated by pretreatment standards in the effluent of the user. These reports shall contain the results of sampling and analysis of the discharge, including the flow and the nature and concentration, or production and mass where requested by the Manager, of pollutants contained therein which are limited by the applicable pretreatment standards. The frequency of monitoring shall be prescribed in the applicable pretreatment standard. All analysis shall be performed in accordance with procedures established by the Administrator pursuant to Section 304(g) of the Act and contained in 40 CFR, Part 136 and amendments thereto or with any other test procedures approved by the Administrator. Sampling shall be performed in accordance with the techniques approved by the Administrator. (R.O. 2007 §715.140; CC 1979 §27-46; Ord. No. 646 §4.3, 2-26-81)

SECTION 715.150: MONITORING FACILITIES

- A. The City shall require to be provided and operated at the user's own expense, monitoring facilities to allow inspection, sampling, and flow measurement of the building sewer and/or internal drainage systems. The monitoring facility should normally be situated on the user's premises, but the City may, when such a location would be impractical or cause undue hardship on the user, allow the facility to be constructed in the public street or sidewalk area and located so that it will not be obstructed by landscaping or parked vehicles.
- B. There shall be ample room in or near such sampling manhole or facility to allow accurate sampling and preparation of samples for analysis. The facility, sampling, and measuring equipment shall be maintained at all times in a safe and proper operating condition at the expense of the user.
- C. Whether constructed on public or private property, the sampling and monitoring facilities shall be provided in accordance with the City's requirements and all applicable local

construction standards and specifications. Construction shall be completed within ninety (90) days following written notification by the City. (R.O. 2007 §715.150; CC 1979 §27-47; Ord. No. 646 §4.4, 2-26-81)

SECTION 715,160: INSPECTION AND SAMPLING

The City shall inspect the facilities of any user to ascertain whether the purpose of this Chapter is being met and all requirements are being complied with. Persons or occupants of premises where waste water is created or discharged shall allow the City or their representative ready access at all reasonable times to all parts of the premises for the purposes of inspection, sampling, records examination or in the performance of any of their duties. The City, approval authority (where the NPDES State is the approval authority), and the EPA shall have the right to set up on the user's property such devices as are necessary to conduct sampling inspection, compliance monitoring and/or metering operations. Where a user has security measures in force which would require proper identification and clearance before entry into their premises, the user shall make necessary arrangements with their security guards so that upon presentation of suitable identification, personnel from the City, approval authority and EPA will be permitted to enter, without delay, for the purposes of performing their specific responsibilities. (R.O. 2007 §715.160; CC 1979 §27-48; Ord. No. 646 §4.5, 2-26-81)

SECTION 715.170: PRETREATMENT

- A. Users shall provide necessary waste water treatment as required to comply with this Chapter and shall achieve compliance with all Federal Categorical Pretreatment Standards within the time limitations as specified by the Federal Pretreatment Regulations. Any facilities required to pretreat waste water to a level acceptable to the City shall be provided, operated, and maintained at the user's expense. Detailed plans showing the pretreatment facilities and operating procedures shall be submitted to the City for review, and shall be acceptable to the City before construction of the facility. The review of such plans and operating procedures will in no way relieve the user from the responsibility of modifying the facility as necessary to produce an effluent acceptable to the City under the provisions of this Chapter. Any subsequent changes in the pretreatment facilities or method of operation shall be reported to and be acceptable to the City prior to the user's initiation of the changes.
- B. The City shall annually publish in a local newspaper a list of the users which were not in compliance with any pretreatment requirements or standards at least once during the twelve (12) previous months. The notification shall also summarize any enforcement actions taken against the user(s) during the same twelve (12) months.
- C. All records relating to compliance with pretreatment standards shall be made available to officials of the EPA or approval authority upon request. (R.O. 2007 §715.170; CC 1979 §27-49; Ord. No. 646 §4.6, 2-26-81)

SECTION 715.180: CONFIDENTIAL INFORMATION

- A. Information and data on a user obtained from reports, questionnaires, permit applications, permits and monitoring programs and from inspections shall be available to the public or other governmental agency without restriction unless the user specifically requests and is able to demonstrate to the satisfaction of the City that the release of such information would divulge information, processes or methods of production entitled to protection as trade secrets of the user.
- B. When requested by the person furnishing a report, the portions of a report which might disclose trade secrets or secret processes shall not be made available for inspection by the public but shall be made available upon written request to governmental agencies for uses related to this Chapter, the National Pollutant Discharge Elimination System (NPDES) permit, State disposal system permit and/or the pretreatment programs; provided however, that such portions of a report shall be available for use by the State or any State agency in judicial review or enforcement proceedings involving the person furnishing the report. Waste water constituents and characteristics will not be recognized as confidential information.
- C. Information accepted by the City as confidential, shall not be transmitted to any governmental agency or to the general public by the City until and unless a ten (10) day notification is given to the user. (R.O. 2007 §715.180; CC 1979 §27-50; Ord. No. 646 §4.7, 2-26-81)

ARTICLE V. ENFORCEMENT

SECTION 715.190: HARMFUL CONTRIBUTIONS

- A. The City may suspend the waste water treatment service and/or a waste water contribution permit when such suspension is necessary, in the opinion of the City, in order to stop an actual or threatened discharge which presents or may present an imminent or substantial endangerment to the health or welfare of persons, to the environment, causes interference to the POTW or causes the City to violate any condition of its NPDES permit.
- B. Any person notified of a suspension of the waste water treatment service and/or the waste water contribution permit shall immediately stop or eliminate the contribution. In the event of a failure of the person to comply voluntarily with the suspension order, the City shall take such steps as deemed necessary including immediate severance of the sewer connection, to prevent or minimize damage to the POTW system or endangerment to any individuals. The City shall reinstate the waste water contribution permit and/or the waste water treatment service upon proof of the elimination of the non-complying discharge. A detailed written statement submitted by the user describing the causes of the harmful contribution and the measures taken to prevent any future occurrence shall be submitted to the City within fifteen (15) days of the date of occurrence. (R.O. 2007 §715.190; CC 1979 §27-51; Ord. No. 646 §5.0, 2-26-81)

SECTION 715.200: REVOCATION OF PERMIT

Any user who violates the following conditions of this Section, or applicable State and Federal regulations, is subject to having his/her permit revoked in accordance with the procedures of Article-V of this Chapter:

- Failure of a user to factually report the waste water constituents and characteristics of his/her discharge;
- Failure of the user to report significant changes in operations, or waste water constituents and characteristics;
- 3. Refusal of reasonable access to the user's premises for the purpose of inspection or monitoring; or
- Violation of conditions of the permit. (R.O. 2007 §715.200; CC 1979 §27-45;
 Ord. No. 646 §5.2, 2-26-81)

SECTION 715.210: NOTIFICATION OF VIOLATION

Whenever the City finds that any user has violated or is violating this Chapter, waste water contribution permit, or any prohibition, limitation of requirements contained herein, the City may serve upon such person a written notice stating the nature of the violation. Within thirty (30) days of the date of the notice, a plan for the satisfactory correction thereof shall be submitted to the City by the user. (R.O. 2007 §715.210; CC 1979 §27-52; Ord. No. 646 §5.3, 2-26-81)

SECTION 715.220: SHOW CAUSE HEARING

- A. The City may order any user who causes or allows an authorized discharge to show cause before the Board of Aldermen why the proposed enforcement action should not be taken. A notice shall be served on the user specifying the time and place of a hearing to be held by the Board of Aldermen regarding the violation, the reasons why the action is to be taken, the proposed enforcement action, and directing the user to show cause before the Board of Aldermen why the proposed enforcement action should not be taken. The notice of the hearing shall be served personally or by registered or certified mail return receipt requested at least ten (10) days before the hearing. Service may be made on any agent or officer of a corporation.
- B. The Board of Aldermen may itself conduct the hearing and take the evidence, or may designate the City Administrator to:
 - Issue in the name of the Board of Aldermen notices of hearings requesting the attendance and testimony of witnesses and the production of evidence relevant to any matter involved in such hearings;

- 2. Take the evidence; and
- Transmit a report of the evidence and hearing, including transcripts and other evidence, together with recommendations to the Board of Aldermen for action thereon.
- C. At any hearing held pursuant to this Chapter, testimony taken must be under oath and recorded stenographically. The transcript, so recorded, will be made available to any member of the public or any party to the hearing upon payment of the usual charges thereof.
- D. After the Board of Aldermen has reviewed the evidence, it may issue an order to the user responsible for the discharge directing that, following a specified time period, the sewer service be discontinued unless adequate treatment facilities, devices or other related appurtenances shall have been installed on existing treatment facilities, devices or other related appurtenances are properly operated. Further orders and directives as are necessary and appropriate may be issued. (R.O. 2007 §715.220; CC 1979 §27-53; Ord. No. 646 §5.4, 2-26-81)

SECTION 715.230: LEGAL ACTION

If any person discharges sewage, industrial wastes or other wastes into the City's waste water disposal system contrary to the provisions of this Chapter, Federal or State pretreatment requirements or any order of the City, the City Attorney may commence an action for appropriate legal and/or equitable relief in the Circuit Court of this County. (R.O. 2007 §715.230; CC 1979 §27-54; Ord. No. 646 §5.5, 2-26-81)

ARTICLE VI. PENALTY -- COSTS

SECTION 715.240: CIVIL PENALTIES

Any user who is found to have violated an order of the Board of Aldermen or who willfully or negligently failed to comply with any provision of this Chapter, and the orders, rules, regulations and permits issued hereunder, shall be fined not less than one hundred dollars (\$100.00) nor more than five hundred dollars (\$500.00) for each offense. Each day on which a violation shall occur or continue shall be deemed a separate and distinct offense. In addition to the penalties provided herein, the City may recover reasonable attorneys' fees, court costs, court reporters' fees and other expenses of litigation by appropriate suit at law against the person found to have violated this Chapter or the orders, rules, regulations, and permits issued hereunder. (R.O. 2007 §715.240; CC 1979 §27-55; Ord. No. 646 §6.1, 2-26-81)

SECTION 715.250: FALSIFYING INFORMATION

Any person who knowingly makes any false statements, representation or certification in any application, record, report, plan or other document filed or required to be maintained pursuant to

this Chapter, or waste water contribution permit, or who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required under this Chapter, shall, upon conviction, be punished by a fine of not more than five hundred dollars (\$500.00) or by imprisonment for not more than ninety (90) days, or by both. (R.O. 2007 §715.250; CC 1979 §27-55; Ord. No. 646 §6.2, 2-26-81)

Attachment 4

Timothy G. Myers, PE Director of Utilities (636) 477-6600, ext. 1337

November 13, 2013

Mr. Paul Morris Water Pollution Control Unit Chief Department of Natural Resources 7545 S. Lindbergh, Suite, 210 St. Louis, MO 63125

Dear Mr. Morris;

In accordance with our NPDES Permit, MO-0030970, the City of St. Peters is submitting with our November NPDES Discharge Monitoring Report; the following information which addresses measures taken to locate and eliminate sources of infiltration and inflow into the collection system.

Public Collection System I & I

The City rehabilitated 32 manholes on 8,700-ft of 36-inch – 42-inch trunkline along Dardenne Creek from Brown Road pump station to Mexico Road. The manholes were lined with epoxy resin at a cost of \$92,647.

Pipe Inspections

Approximately 22.5-miles (117,563-ft) of sanitary sewer pipe were inspected for defects and/or I&I sources and approximately 25.1-miles (132,437-ft) of sanitary sewer pipe was cleaned and/or inspected by Mid America Pipe Service as a contractor for the City. The cost of this service was \$76,813.46. This equates to 20% of our system which meets our goal of inspecting the entire system within a 5-year period.

Private I & I Sources

As part of the City's Lateral Insurance Program, 435 laterals were inspected, and of those 435 laterals, 155 laterals were repaired or replaced. The breakdown of these laterals is shown below. Each of these laterals was CCTV inspected for defects and I & I.

Type	Inspected	Repaired or Replaced
New Home Construction	334	25
Walk-in (Reactive)	90	84
Targeted Areas	101	46
TOTAL	485	155

925

• Page 2

The City budgets approximately \$500,000/yr for private lateral inspections and repairs. During the lateral inspection process the City's Contractor also inspects for illicit sump pump connections to the sanitary lateral.

If you have any questions regarding this year's I&I report please feel free contact me at 636-477-6600, extension 1337.

Sincerely,

Timothy G. Myers, P.E. Director of Utilities

Cc: Bill Malach, Manager Water Environment Services

Timothy G. Myers, PE Director of Utilities (636) 477-6600, ext. 1337

November 20, 2012

Mr. Paul Morris Water Pollution Control Unit Chief Department of Natural Resources 7545 S. Lindbergh, Suite, 210 St. Louis, MO 63125

Dear Mr. Morris;

In accordance with our NPDES Permit, MO-0030970, the City of St. Peters is submitting with our November NPDES Discharge Monitoring Report; the following information which addresses measures taken to locate and eliminate sources of infiltration and inflow into the collection system.

Public Collection System I & I

Five (5) spot repairs were completed this year that had significant joint defects (at least ½ pipe displacement):

Monique Court – pipe failure Soutee Drive – pipe failure Burning Leaf Drive – pipe failure Mill Spring Lane – pipe failure Bluegrass Lane – Fernco failure

The City will be finalizing a contract to rehabilitate 13 manholes on our trunkline along Dardenne Creek from Brown Road pump station to I-70. The manholes will be lined by either epoxy resin or corrosion resistant mortar. The project will be completed within 60 days of the notice to proceed.

The cost of this project is \$40,837.50.

Pipe Inspections

Approximately 45.8-miles (241,889-ft) of sanitary sewer pipe were inspected for defects and/or I&I sources. This equates to 20% of our system which meets our goal of camering the entire system within a 5 year period.

Private I & I Sources

As part of the City's Lateral Insurance Program, 298 laterals were inspected, and of those 298 laterals, 102 laterals were repaired or replaced. The breakdown of these laterals is shown below. Each of these laterals was CCTV inspected for defects and I & I.

Type	Inspected	Repaired or Replaced
New Home Construction	197	7
Walk-in (Reactive)	47	45
Targeted Areas	54	50
TOTAL	298	102

The City budgets approximately \$500,000/yr for private lateral inspections and repairs.

If you have any questions regarding this year's I&I report please feel free contact me at 636-477-6600, extension 1337.

Sincerely,

Timothy G. Myers, P.E. Director of Utilities

Cc: Bill Malach, Manager Water Environment Services

Timothy G. Myers, PE Director Water Environment Services (636) 477-6600, ext. 1337

December 19, 2011

Mr. Paul Morris Water Pollution Control Unit Chief Department of Natural Resources 7545 S. Lindbergh, Suite, 210 St. Louis, MO 63125

Dear Mr. Morris;

In accordance with our NPDES Permit, MO-0030970, the City of St. Peters is submitting with our November NPDES Discharge Monitoring Report; the following information which addresses measures taken to locate and eliminate sources of infiltration and inflow into the collection system.

Public Collection System I&I

Approximately 3,600-ft of 24-inch fiberglass sanitary sewer trunk line was replaced with 300-ft of 24-inch reinforced concrete pipe (RCP), 195-ft of ductile iron pipe (DIP) and 3,111-ft of 26-inch high density polyethylene (HDPE) pipe. Also, approximately 850-ft of 18-inch fiberglass sanitary sewer trunk line was replaced with 850-ft of 21-inch HDPE pipe.

The installation of the HDPE was completed by pipe bursting a fused HDPE pipe through the existing fiberglass pipe. Pipe joints in approximately 4,000-ft of pipe were eliminated with the pipe bursting technology.

Fifteen (15) manholes were also reconstructed and sealed as part of this trunk line replacement project.

The cost of this project was approximately \$910,862.

Manhole Lids

Five (5) manhole lids were replaced with water tight lids at a cost of approximately, \$1,780. These lids were installed on sanitary manholes in Dardenne Creek floodplain near Mexico Road and South Church Street.

Pipe Inspections

Approximately 14.7-miles (77,616-ft) of sanitary sewer pipe were inspected for defects and/or I&I sources. One location of potential significant I&I was identified on the Spencer Creek Trunk Sewer near Willott Road and this 18-inch diameter segment is scheduled for lining in the current fiscal year at a cost of approximately \$35,000.

Another segment was approximately 20-ft in length on an 8-inch sanitary sewer was identified near Monique Ct and is scheduled for replacement this fiscal year,

Private I&I Sources

As part of the City's Lateral Insurance Program, 422 laterals were inspected, and of those 422 laterals, 143 laterals were repaired or replaced. The breakdown of these laterals is shown below. Each of these laterals was CCTV inspected for defects and I & I.

Type	Inspected	Repaired or Replaced
New Home Construction	290	19
Walk-in (Re-active)	49	44
Targeted Areas	83	80 /
TOTAL	422	143

The City budgets approximately \$450,000/yr for private lateral inspections and repairs.

The City also worked with a non-profit senior housing organization, (St. Peters Senior Village) to eliminate private sources of I&I from their 13-building, 3-acre site. Work performed by the St. Peters Senior Village's contractor included elimination of an exterior stair well drain and yard drains from the private sanitary collection system. The City replaced an existing storm sewer inlet in public right-of-way and adjusted the elevation of the new inlet to allow the exterior stair well drain and yard drains to be connected into the storm sewer inlet.

If you have any questions regarding this year's I&I report please feel free contact me at 636-477-6600, extension 1337.

Sincerely,

Timothy G. Myers, P.E. Director Water Environment Services







LIANE SARGENT, P.E. DIRECTOR OF ENGINEERING (636) 477-6600, EXT. 1307

January 11, 2013

Joe Walz St. Louis Regional Office Missouri Department of Natural Resources 7545 S. Lindbergh Suite 210 St. Louis, Missouri 63125

RE: City of St. Peters Sewer Extension Program

2012 Annual Report

Dear Mr. Walz:

Enclosed is the annual report for sewer extensions in the City of St. Peters for 2012 as required per the terms and conditions of the NPDES Discharge permit number MO-0030970.

If you have any questions please feel free to contact me at (636) 477-6600, extension 1307.

Sincerely,

Liane Sargent, P.E.

Director of Engineering

Enclosure - 2012 Annual Report

cc: Russ Batzel, TDS, Manager (w/enclosure)

Bill Malach, WES, Manager (w/enclosure)

Tim Myers, WES, Director of Utilities (w/enclosure)

City of St. Peters Sewer Extension Program 2012 Annual Report

During the year of 2012, the City of St. Peters issued two (2) sanitary sewer extension permits.

Menards

A permit was issued on July 19, 2012 approving the construction of 1,061 lineal feet of 8" PVC sanitary sewer piping. The project consists of a 162,340 square foot building (retail area, receiving area, warehouse area and office/restrooms), and 4 commercial outlots which are currently undeveloped. The overall development is located on a 34.27 acre tract and is estimated to generate 32,000 gpd of wastewater. The facilities were installed and inspected in the summer of 2012. Approval of the facilities is pending.

Mers/Goodwill

A permit was issued on May 17, 2012 approving the construction of 434 lineal feet of 8" PVC sanitary sewer piping for the Mers/Goodwill project. The sanitary sewer extension will serve an 11, 880 square foot building (retail area) and 1 commercial lot which is currently undeveloped. The facilities were installed and inspected in the summer of 2012, and have met the construction requirements. The Mers/Goodwill sanitary sewer extension connects into another sanitary sewer extension that was constructed in the spring of 2011 as part of a City Roadway Project, Bellemeade/McGavock. The Bellemeade/McGavock sewer extension consisted of 492 lineal feet of 8" PVC sanitary sewer piping and serves 1 additional commercial lot adjacent to the Mers/Goodwill tract, which has been approved for a Fifth Third Bank. Fifth Third Bank is a 4,125 square foot building. The overall development (3 lots) is located on a 4.38 acre tract and is estimated to generate 4,000 gpd of wastewater.

Currently the wastewater treatment plant is operating at 5.5 MGD with a design capacity of 9.5 MGD. The projects that were completed in 2012 will not have a significant impact on the operation and maintenance of the treatment facility.

2012 Year End Summary Report Form S – Section 1

A. COMPOST OPERATION

Inter-Governmental Agreement

The City of St. Peters and the Metropolitan Sewer District (MSD) of St. Louis negotiated an agreement in 2000 to beneficially reuse MSD Missouri River WWTP daily production biosolids for composting of St. Peter's yard waste. This agreement is mutually beneficial to both parties. For MSD Missouri River WWTP it provides for the beneficial reuse of biosolids instead of being put into a landfill. For the City of St. Peters, the cake biosolids are mixed into ground yard waste at a C/N ratio or < 5% to compost both the biosolids and yard waste into a soil-like product.

An Operations & Management Plan has been submitted to DNR for St. Peters to further process MSD's cake biosolids through composting. St. Peters' composting process meets Class-A status for EPA requirement and Class-A / Fertilizer Exempt status for DNR to be either marketed or for a give-away program.

A total of 306.90 dry tons of cake biosolids from MSD was used by St. Peters for composting in 2012. A summary of the daily haul records of the MSD cake biosolids from Missouri River WWTP are found in Table 5-C of Section 5 of this 2012 Year End Summary Report.

For details of St. Peters' composting operations please call either Mr. Bill Malach at 636-477-6600 Ext. 1301 or Mr. Tim Myers at 636-477-6600 Ext. 1337.

Utilization of the Class-A compost through distribution is outlined in Section 10 of this 2012 Year-End Summary Report. There was approximately 25,989.41 cubic yards of Class-A compost that was distributed to clients and/or residents, as well as utilized in land application, erosion control, landscaping, and vegetation establishment projects in 2012.

St. Peters continues to expand the utilization of compost through both distribution and land application for its fertilizer value. Section 3 outlines nutrient analyses for Class-A compost.



LIANE SARGENT, P.E. DIRECTOR OF ENGINEERING (636) 477-6600, ext. 1307

January 30, 2012

Joe Walz St. Louis Regional Office Missouri Department of Natural Resources 7545 S. Lindbergh Suite 210 St. Louis, Missouri 63125

SEP 2 6 2012

RE:

City of St. Peters Sewer Extension Program

2011 Annual Report

Dear Mr. Walz:

Enclosed is the annual report for sewer extensions in the City of St. Peters for 2011 as required per the terms and conditions of the NPDES Discharge permit number MO-0030970.

If you have any questions please feel free to contact me at (636) 477-6600, extension 1307.

Sincerely,

Liane Sargent, P.E.

Director of Engineering

Enclosure - 2011 Annual Report

cc: Russ Batzel, TDS, Manager (w/enclosure)
Bill Malach, WES, Manager (w/enclosure)
Fin Myers, WES, Director of Hilling (w/enclosure)

Tim Myers, WES, Director of Utilities (w/enclosure)

City of St. Peters Sewer Extension Program 2011 Annual Report

During the year of 2011, the City of St. Peters awarded a contract for one (1) off-site sanitary sewer extension, three (3) contracts for sanitary sewer maintenance, one (1) sanitary pump station and completed two (2) projects that were previously awarded. No development permits for sanitary sewer extensions were issued in 2011.

Emerald Cove Sanitary Sewer Extension and Pump Station (Reported in 2010 Annual Report)

The City awarded the Emerald Cove Sanitary Sewer Extension & Pump Station project which consisted of the installation of 8 manholes, 1,350 feet of 8-inch PVC gravity sewer. 1,630 feet of 8-inch PVC force main, a wet well and valve vault, and 2-25 hp pumps. The pump station will provide adequate service for 307 existing single family residences, 208 proposed single family residences, and 36.8 acres of commercial/industrial development. The average daily flow that the pump station will handle is 322,316 gal/day. The pump station is anticipated to be operating in February 2011.

UPDATE: The pump station, gravity sewer, and force main were completed and inspected in the Spring of 2011 and is fully operational.

Salt River Road Sanitary Sewer Extension and Pump Station (Reported in 2009 Annual Report)

The City awarded a contract for the Salt River Road Sanitary Sewer Extension and it is currently under construction. The project will provide gravity service for approximately 438 acres of development and is estimated to generate 257,218 gpd. The sewer extension project consists of 18 manholes, 2,720 feet of 12 inch PVC, and 1, 275 feet of 8 inch PVC.

The pump station consists of 108 feet of 12 inch PVC, construction of a wet well and 2-25 hp pumps. The contract has been awarded but construction has not started yet.

UPDATE: The gravity sewer was completed and inspected in the Summer of 2010. The pump station was completed and inspected in the Winter of 2010 and the force main was installed by the City of St. Peters and was tested in the Fall of 2010. The entire system is fully operational.

Premier 370 Sanitary Sewer Extension

The City awarded the Premier 370 Samtary Sewer Extension project which consisted of the installation of 19 manholes and 3.849 feet of 8 inch PXC gravity sewer. The gravity sewer will provide service to approximately 77 acres of commercial industrial.

development and it estimated to generate 365,750 gpd of wastewater. The gravity sewer was completed and inspected in the fall of 2010.

Premier 370 Sanitary Pump Station No. 3

The City awarded the Premier 370 Sanitary Pump Station No. 3 project which consisted of the construction of a wet well, valve vault, 88 feet of 72-inch RCP storage pipe and 2-17.4 hp pumps. The contractor has completed the installation but the system has not been tested.

West Sunny Hills Sewer Relocation

The City awarded the West Sunny Hills Sewer Relocation which consisted of the installation of 4 manholes, 344 ft of 8 inch PVC and the abandonment of approximately 375 ft of 8 inch PVC. The relocation was required due to a new roadway constructed by the City of St. Peters. The gravity sewer relocation was completed and inspected in the fall of 2011. No additional flows are generated from this project.

I-70 Reliever Route Relocation

The City awarded the I-70 Reliever Route Relocation which consisted of the installation of 17 manholes, ft of 15 inch PVC, ft of 12 inch PVC. The relocation was required due to a new roadway constructed by St. Charles County. The gravity sewer relocation was completed and inspected in the summer of 2011. No additional flows are generated from this project.

Spencer Creek Trunk Sewer Replacement

The City awarded the Spencer Creek Trunk Sewer Replacement which consisted of rehabbing an existing 18 inch and 24 inch fiberglass sanitary sewer. The contractor "pipe bursted" 3,110 ft of 26 inch HDPE and 920 ft of 20 inch HDPE. They also installed 467 ft of 24 inch RCP, 195 ft of DIP and 16 ft of 8 inch PVC. The work was completed and inspected in the Summer of 2011. No additional flows are generated from this project.

Currently the wastewater treatment plant is operating at 5.5 MGD with a design capacity of 9.5 MGD. The projects that were completed in 2011 will not have a significant impact on the operation and maintenance of the treatment facility.



LIANE SARGENT, P.E. DIRECTOR OF ENGINEERING (636) 477-6600, EXT. 1307

DEC 3 1 2009

December 30, 2009

Joe Walz
St. Louis Regional Office
Missouri Department of Natural Resources
7545 S. Lindbergh
Suite 210
St. Louis, Missouri 63125

RE: City of St. Peters Sewer Extension Program

2009 Annual Report

Dear Mr. Walz:

Enclosed is the annual report for sewer extensions in the City of St. Peters for 2009 as required per the terms and conditions of the NPDES Discharge permit number MO-0030970.

If you have any questions please feel free to contact me at (636) 477-6600, extension 1307.

Sincerely,

Liane Sargent, P.E.

Director of Engineering

Enclosure - 2009 Annual Report

cc: Cathy Pratt, Manager, EDS (w/enclosure) Russ Batzel, Manager, PWS (w/enclosure) Bill Malach, PWS, Utilities (w/enclosure)

City of St. Peters Sewer Extension Program 2009 Annual Report

During the year of 2009, the City of St. Peters issued two (2) sanitary sewer extension permits, constructed (1) off-site force main, and awarded contracts for (1) off-site sanitary sewer extension and pump station.

Salt River Road Sanitary Sewer Extension and Pump Station

The City awarded a contract for the Salt River Road Sanitary Sewer Extension and it is currently under construction. The project will provide gravity service for approximately 438 acres of development and is estimated to generate 257,218 gpd. The sewer extension project consists of 18 manholes, 2,720 feet of 12 inch PVC, and 1, 275 feet of 8 inch PVC.

The pump station consists of 108 feet of 12 inch PVC, construction of a wet well and 2-25 hp pumps. The contract has been awarded but construction has not started yet.

Salt River Road Force Main

A force main was installed by City crews during 2009. 4,100 feet of 8 inch PVC force main was installed. The force main was completed and inspected in the fall of 2009.

Bellemeade Center

A permit was issued on June 12, 2009 approving the construction of 236 lineal feet of 8" PVC sanitary sewer piping. The project consists of a 10,800 square foot building, is located on a 1.37 acre tract and is estimated to generate 2,160 gpd of wastewater. The facilities have not been constructed to date.

Aventura at Richmond

A permit was issued on September 9, 2009 approving the construction of 417 lineal feet of 8" PVC sanitary sewer piping. Aventura at Richmond is an apartment complex and consists of 112 units and a clubhouse. It is located on an 8.15 acre tract and is estimated to generate 33,600 gpd of wastewater. The facilities have not been constructed to date.

Additional estimated flow into the City of St. Peters treatment system for permits issued in 2009 is 292,978 gpd. Currently the wastewater treatment plant is operating at 6.75 MGD with a design capacity of 9.5 MGD. The extension permits issued for 2009 will not have a significant impact on the operation and maintenance of the treatment facility.

The City received a DNR construction permit and contracted with KCI Construction to expand the Wastewater Plant Treatment Plant capacity to 9.5-mgd in 2009. The expansion included headworks modifications, additional flow equalization, additional aeration in the oxidation ditches, a third final clarifier, UV disinfection, and backup power supply. Construction has been completed on these improvements. The contractor is at substantial completion and will be at final completion in January 2010.





LIANE SARGENT, P.E. DIRECTOR OF ENGINEERING (636) 477-6600, EXT. 307

January 19, 2009

Joe Walz St. Louis Regional Office Missouri Department of Natural Resources 7545 S. Lindbergh Suite 210 St. Louis, Missouri 63125

JAN 2 / 2009

RE: City of St. Peters Sewer Extension Program

2008 Annual Report

Dear Mr. Walz:

Enclosed is the annual report for sewer extensions in the City of St. Peters for 2008 as required per the terms and conditions of the NPDES Discharge permit number MO-0030970.

If you have any questions please feel free to contact me at (636) 477-6600, extension 307.

Sincerely,

Liane Sargent, P.E.

Director of Engineering

Enclosure - 2008 Annual Report

cc: Cathy Pratt, Manager, EDS (w/enclosure) Russ Batzel, Manager, PWS (w/enclosure) Bill Malach, PWS, Utilities (w/enclosure)

City of St. Peters Sewer Extension Program 2008 Annual Report

During the year of 2008, the City of St. Peters issued seven (7) sanitary sewer extension permits.

Goddard School Daycare

A permit was issued on March 15, 2007 approving the construction of 337 lineal feet of 8" PVC sanitary sewer piping. The project consists of an 8,000 square foot building, is located on a 1.12 acre tract and is estimated to generate 2,640 gpd of wastewater. The facilities were inspected and accepted in the summer of 2008.

Villages of St. Peters Nursing Home

A permit was issued on June 21, 2007 approving the construction of 35 lineal feet of 8" PVC sanitary sewer piping. The Villages of St. Peters consists of a 77,902 square foot building with 120 nursing home beds and 52 assisted living units. It is located on a 6.61 acre tract and is estimated to generate 26,270 gpd of wastewater. The facilities were inspected and accepted in the spring of 2008.

Green Forest Village (Villas)

A permit was issued on January 31, 2008 approving the construction of 543 lineal feet of 8" PVC sanitary sewer piping. The project consists of 28 single-family units on 3.055 acres estimated to generate 7,770 gpd of wastewater. The facilities were installed and accepted in the winter/early spring of 2008. There are currently two out of the 28-units constructed at this time.

City of St. Peter's Justice Center

A permit was issued on November 19, 2008 approving the construction of 44 lineal feet of 6" PVC sanitary sewer piping. The Justice Center will be a 64,710 square foot building and is located on a 4.5 acre tract. These facilities are under construction and are currently being inspected. The new St. Peter's Justice Center is replacing the existing police department and meeting rooms at City Hall, therefore, the net increase to the wastewater plant will be minuscule.

Houlihans Restaurant

A permit was issued on June 10, 2008 approving the construction of 158 lineal feet of 8" PVC sanitary sewer piping. The site consists of a 1.145 acre tract and is estimated to generate 1,305 gpd of wastewater. The facilities have not been constructed to date.

St. Peters Executive Centre - Lot 2B

A permit was issued on April 7, 2008 approving the installation of 110 lineal feet of 8" PVC of sanitary sewer piping. The site consists of a 7.75 acre tract, with no development planned at this time. Based on its current zoning of service commercial, this site is estimated to produce 30,000 gpd of wastewater. The facilities have not been constructed to date.

Premier 370 Business Park

A permit was issued on January 29, 2008 approving the construction of 7 Pump Stations serving a total of 686 acres consisting of 42 Industrial and Commercial lots. The following is a list of the lineal feet of sanitary sewer piping and associated site acreage:

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PS#1 – 51 acres; 4,033 lineal feet of 10" PVC and 5,800 lineal feet of 16" C905 PS#2 – 13 acres; 1,424 lineal feet of 10" PVC and 2,225 lineal feet of 14" C905 PS#3 – 86 acres; 3,238 lineal feet of 10" PVC and 1,850 lineal feet of 10" C900 PS#4 – 74 acres; 3,778 lineal feet of 10" PVC and 1,880 lineal feet of 6" C900 PS#5 – 72 acres; 3,772 lineal feet of 10" PVC and 1,825 lineal feet of 6" C900 PS#6 – 157 acres; 5,610 lineal feet of 10" PVC and 2,775 lineal feet of 12" C900 PS#7 – 233 acres; 3,397 lineal feet of 10" PVC and 2,560 lineal feet of 8" C900
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The following is a list of Gallons per Day of wastewater this development will produce:

The following is a breakdown by PS:	PS#1: 89,280 GPD
	PS#2: 21,610 GPD
	PS#3: 149,760 GPD
	PS#4: 129,600 GPD
	PS#5: 125,280 GPD
	PS#6: 273,600 GPD
	PS#7: 406,080 GPD
Existing Turnberry Development:	130,223 GPD
Proposed City Park within Premier 370:	100 GPD
	TOTAL: 1,325,533 GPD

The commencement of construction occurred in the Spring of 2008 and is currently ongoing. Inspections began in the Spring of 2008 and are on-going. Currently the contractor has installed the majority of the gravity lines but has not started constructing the pump stations to pump the flow to the Wastewater Treatment Plant. Currently there is only one parcel for a distributions center, which has been submitted for plan review. It is anticipated this development will take approximately 20-years for ultimate build-out.

Additional estimated flow into the City of St. Peters treatment system for permits issued in 2008 is 1,393,518 gpd. Currently the wastewater treatment plant is operating at 6.75 MGD with a design capacity of 6.9 MGD. The extension permits issued for 2008 will not have a significant impact on the operation and maintenance of the treatment facility.

The City has received a DNR construction permit and has contracted with KCI Construction to expand the Wastewater Plant Treatment Plant capacity to 9.5-mgd. The expansion includes headworks modifications, additional flow equalization, additional aeration in the oxidation ditches, a third final clarifier, UV disinfection, and backup power supply. Construction has begun on the third clarifier and the UV building. The third clarifier is scheduled for completion in June 2009 and all improvements are scheduled to be completed by March 2010.



Liane Sargent, P.E. Director of Engineering (636) 477-6600, ext. 307

March 17, 2008

Joe Walz St. Louis Regional Office Missouri Department of Natural Resources 7545 S. Lindbergh Suite 210 St. Louis, Missouri 63125

RE: City of St. Peters Sewer Extension Program

2007 Annual Report

Dear Mr. Walz:

Enclosed is the annual report for sewer extensions in the City of St. Peters for 2007 as required per the terms and conditions of the NPDES Discharge permit number MO-0030970.

If you have any questions please feel free to contact me at (636) 477-6600, extension 307.

Sincerely,

Liane Sargent, P.E.

Director of Engineering

Enclosure

cc: Cathy Pratt, Manager, EDS Russ Batzel, Manager, PWS Bill Malach, PWS, Utilities City of St. Peters Sewer Extension Program 2007 Annual Report Elici.

During the year of 2007, the City of St. Peters issued seven (7) sanitary sewer extension permits and completed the construction of one (1) off-site trunk replacement project.

Ohmes Farm Off-Site Trunk Sewer Replacement

The City approved plans for the installation of 2,150 lineal feet of 18" PVC sanitary sewer piping, and 1,155 lineal feet of 15" PVC sanitary sewer piping. The project replaced 3,000 lineal feet of existing dual 12" and 8" lines. The facilities were installed in the summer/fall of 2007, inspected in the winter of 2007 and have met the construction requirements.

Ohmes Farm

A permit was issued on April 5, 2007 approving the construction of 36,061 lineal feet of 8" PVC, 235 lineal feet of 8" ductile iron, 3,609 lineal feet of 10" PVC, and 210 lineal feet of 10" ductile iron sanitary sewer piping. The project consists of 420 single-family residential lots, 42 detached villa lots, 74 units of villas and 39 townhome buildings consisting of 136 residential units. This development is located on a 250 acre tract and is estimated to generate 248,640 gpd of wastewater. The facilities were installed in the summer of 2007 and inspected in the fall of 2007. Approval of the facilities is pending.

Crown Square (a.k.a. Victoria Manor)

A permit was issued on May 18, 2007 approving the construction of 523 lineal feet of 8" PVC sanitary sewer piping. Crown Square is a 3 building, 7 unit residential development located on a 1.7 acre tract and is estimated to generate 7,770 gpd of wastewater. The facilities were installed in the summer of 2007 and inspected in the fall of 2007. Final approval is pending.

The Townes at Belleau Creek - Phase One

A permit was issued on August 1, 2007 approving the construction of 1,578 lineal feet of 4" PVC sanitary sewer force main, 2,261 lineal feet of 8" PVC, and 82 lineal feet of 8" ductile iron sanitary sewer piping. The project consists of 65 single-family residential lots on 7.44 acres estimated to generate 24,050 gpd of wastewater, and 3.5 acres of commercial development estimated to generate 5,600 gpd; for a total tract size of 10.94 acres and 29,650 gpd of wastewater. The facilities are currently being installed and inspected.

Katiebrook

A permit was issued on August 27, 2007 approving the construction of 60 lineal feet of 8" PVC sanitary sewer piping. Katiebrook is an 8 building, 64 unit residential development in the city of Cottleville, that is served by the City of St. Peter's sanitary facilities. Katiebrook is on a 5.758 acre tract and is estimated to generate 23,680 gpd of wastewater. These facilities were installed in the fall of 2007 and are currently under inspection.

Bordeaux Condominiums

A permit was issued on December 20, 2007 approving the construction of 645 lineal feet of 8" PVC sanitary sewer piping. Bordeaux Condominiums is a 7 building, 84 unit residential development in the city of Cottleville, that is served by the City of St. Peter's sanitary facilities. Bordeaux Condominiums is located on a 5.98 tract and is estimated to generate 31,080 gpd of wastewater. These facilities were installed in the winter of 2007/2008 and are currently being inspected.

Windsor Crest

A permit was issued on April 24, 2007 approving the construction of 304 lineal feet of 8" PVC sanitary sewer piping. Windsor Crest is located in the City of Cottleville and is served by the City of St. Peter's facilities. The project consists of 8 residential lots - 1 single-family and 7 attached villas, on a 2.64 acre tract and is estimated to generate 5,550 gpd of wastewater. The facilities were installed in the summer of 2007, were inspected in the fall of 2007 and their final approval is pending.

St. Charles Hyundai - Sewer Replacement

A permit was issued on November 14, 2007 approving the installation of 711 lineal feet of 8" PVC of sanitary sewer piping. The project replaced 580 lineal feet of existing 8" PVC. The facilities were installed and inspected in the fall of 2007, and have met the construction requirements.

Additional estimated flow into the City of St. Peters treatment system for permits issued in 2007 is 346,370 gpd. Currently the wastewater treatment plant is operating at 6.75 MGD with a design capacity of 6.9 MGD. The extension permits issued for 2007 will not have a significant impact on the operation and maintenance of the treatment facility.

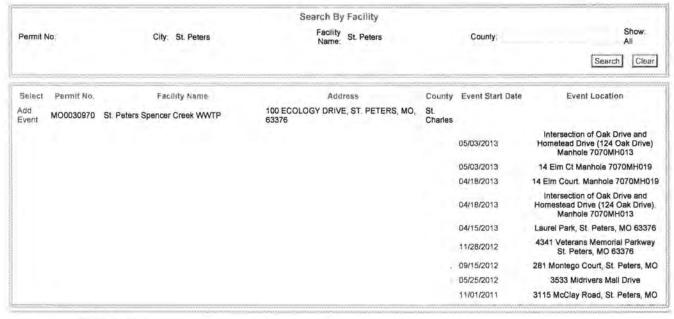
The City has contracted with Black & Veatch to design an expansion to the Wastewater Treatment Plant. The expansion will include headworks improvements, additional aeration in the oxidation ditches, a third clarifier, and disinfection. These improvements will be submitted to DNR for a construction permit in June 2008.

Attachment 5



- Account Settings
- · More information
- Logout

SSO Event Search





1-800-361-4827 / 573-751-1300 E-mail; cleanwater@dnr.mo.gov



Event Search

- · Account Settings
- · More information
- · Logout

Overflow / Bypass Event Details

Initial Report

Permit No: MO0030970

Facility Name: St. Peters Spencer Creek WWTP

Once you enter the Event End Date & Time fields and Add Event/Save Changes, you will no longer be able to edit this record!

Event Details

Bypass = at the wastewater treatment plant, Overflow = in the collection system

Confirmation No: 2160

*Type of Event: SSO (Overflow)

*Wet or Dry Event? Wet

*Event Begin Date: 04/15/2013 (MM/DD/YYYY)

(HH:MM) Military Time *Event Begin Time: 14:00

**Event End Date: 04/15/2013 (MM/DD/YYYY)

""Event End Time: 14:50 (HH.MM) Military Time

Event Duration (hh:mm) 0d:0h:50m:

*Initial Report Date: 04/16/2013 (MM/DD/YYYY)

*Initial Report Time: 10:17 (HH:MM) Military Time

Discharged To: Ground

*Reported By: Lisa Johnson

*Immediate Contact (636) 477 - 6600

Ongoing?:

*Estimated Volume at time of Initial Report (gallons): 30.00

is bypass/overflow reaching Waters of the State?

Effected Waterbody: NA

**Cause of Event: Plugged Sewer

Cause of Event Comments

Event Type: Manhole

* To select more than one choice hold down the control key on the keyboard

Additional Impact: Fish Kill

Public Beach or Public Use Area Impacted

Dry Weather Release **Drinking Water Intakes Affected**

Release Volume Greater Than 50,000 Gal

Wet Event Details

*Wet Event Start Date: 04/15/2013 (MM/DD/YYYY)

**Wet Event End Date: 04/15/2013 (MM/DD/YYYY)

*Precipitation Type: Rain

**Precipitation Amount (inches): 0.75

*Soil Conditions: wet

Location information

County St. Charles

UTM Easting: 710789.939

UTM Northing: 4293714.645

^{*} Indicates a Required Field

^{**}Indicates a Required Field for Final Report

	* Location Description Law	irel Fark, St. Pete	rs, MO 63376	
old down the left mouse butto	m in. The mouse wheel or the slin n and drag the map to move to a et city) and select the 'Locate' but	nother location. Optionally, s	select a County, City or Zip Code fro	ut. Use the arrow buttons on the edges of the map o om the drop downs to zoom to an area, OR you may
ounty: St. Charles	City:	Zip Code:	Address:	Locate
ease zoom in. Location selec	tion is not allowed at Map Scales	less than 1:24,000.		
Select the red indicator to	activate the marking tool then sin	gle click on the map to mark	the location of your event.	
		5 - Day R	Report	
** Estimated E	inal Total Volume (gallons): 150			
		0.00		
Did bypass	reach Waters of the State?			
	"Response: No	debris escaped san erflow was reported	itary sewer system	
		ckup during rain up		
		ermined to be sani		
		spatched immediatel		

Missouri Department of Natural Resources

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Event Search

Account Settings

· More information

- Logout

Overflow / Bypass Event Details

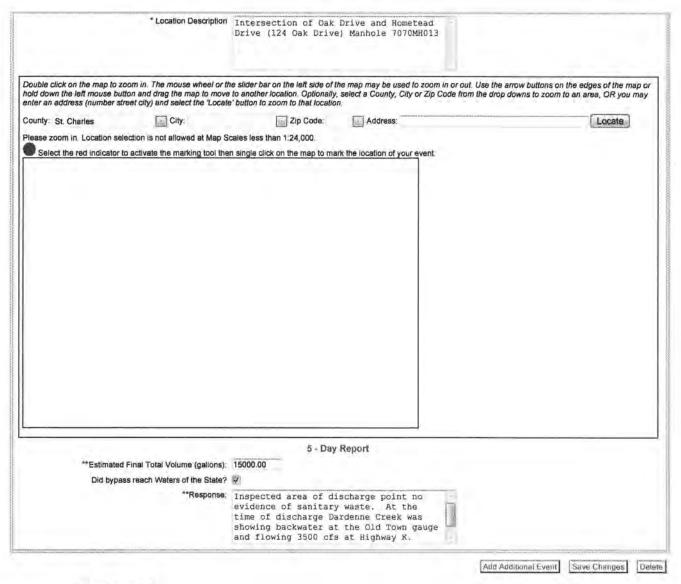
Facility Name: St. Peters Spencer Creek WWTP
Permit No. MO0030970

* Indicates a Required Field

Once you enter the Event End Date & Time fields and Add Event/Save Changes, you will no longer be able to edit this record!

	Event Details
Bypass	at the wastewater treatment plant; Overflow = in the collection system
Confirmation No:	2594
*Type of Event:	Bypass
*Wet or Dry Event?	Wet [
*Event Begin Date:	05/03/2013 (MM/DD/YYYY)
*Event Begin Time:	21:30 (HH:MM) Military Time
**Event End Date:	05/04/2013 (MM/DD/YYY)
**Event End Time:	00:30 (HH:MM) Military Time
Event Duration (hh:mm)	Od:3h:Om:
*Initial Report Date:	05/06/2013 (MM/DD/YYYY)
*Initial Report Time:	10:49 (HH:MM) Military Time
Discharged To:	Stormsewer
*Reported By:	Lisa Johnson
*Immediate Contact	A STATE OF THE STA
Ongoing?:	
Estimated Volume at time of Initial Report (gallons):	
Is bypass/overflow reaching Waters of the State?	V :
Effected Waterbody;	Dardenne Creek
**Cause of Event:	Rain
Cause of Event Comments:	High infiltration rates due to heavy rains from private sources
Event Type:	
	* To select more than one choice hold down the control key on the keyboard
Additional Impact	Fish Kill Public Beach or Public Use Area Impacted Dry Weather Release Drinking Water Intakes Affected Release Volume Greater Than 50,000 Gal Wet Event Details
Walst Event Of the Set	
*Wet Event Start Date.	
**Wet Event End Date	
*Precipitation Type.	
**Precipitation Amount (inches)	
*Soil Conditions	Saturated Soils
	Location Information
	St. Charles
UTM Easting:	704935.320
UTM Northing:	J11 Haad Haid Scharman Separt

^{**}Indicates a Required Field for Final Report



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· Account Settings

· More Information

· Logout

Event Search

Overflow / Bypass Event Details

initial Report.

Facility Name: St. Peters Spencer Creek WWTP
Permit No: MO0030970

* Indicates a Required Field

Once you enter the Event End Date & Time fields and Add Event/Save Changes, you will no longer be able to edit this record!

	Event Details	
Bypass	= at the wastewater treatment plant, Overflow = in the collection system	
Confirmation No:	2449	
*Type of Event:	SSO (Overflow)	
*Wet or Dry Event?	Wet [so]	
*Event Begin Date:	04/18/2013 (MM/DD/YYYY)	
*Event Begin Time:	13:00 (HH:MM) Military Time	
**Event End Date:	04/19/2013 (MM/DD/YYYY)	
**Event End Time:	01:00 (HH:MM) Military Time	
Event Duration (hh:mm)	0d:12h:0m:	
"Initial Report Date:	04/19/2013 (MM/DD/YYYY)	
*Initial Report Time:	16:00 (HH:MM) Military Time	
Discharged To:	Stormsewer	
*Reported By:	Tim Myers	
*Immediate Contact	(636) 477 - 6600	
Ongoing?:	MD .	
*Estimated Volume at time of Initial Report (gallons):	180000.00	
is bypass/overflow reaching Waters of the State?	2	
Effected Waterbody:	Dardenne Creek	
**Cause of Event:	Rain	
Cause of Event Comments:	High infiltration rates due to the heavy rains from private sources	1.4
Event Type:		
	* To select more than one choice hold down the control key on the keyboard	
Additional Impact	Fish Kill Public Beach or Public Use Area Impacted Dry Weather Release Drinking Water Intakes Affected Release Volume Greater Than 50,000 Gal Wet Event Details	
*Wet Event Start Date	- Acceptance of the control of the c	
**Wet Event End Date		
*Precipitation Type	Company Compan	
· · · · · · · · · · · · · · · · · · ·		
**Precipitation Amount (inches)	172	
"Precipitation Amount (inches)		
	1.72 Saturated Soils	
*Soil Conditions County	Saturated Soils	

[&]quot;Indicates a Required Field for Final Report

old down the left mouse but	tton and drag the map to mo		select a County, City or Zip Code	out. Use the arrow buttons on the edges of the map of from the drop downs to zoom to an area, OR you may
ounty: St. Charles	City:	Zip Code:	Address:	Locate
lease zoom in. Location sel	ection is not allowed at Map	Scales less than 1:24,000.		
Select the red indicator t	o activate the marking tool t	hen single click on the map to ma	rk the location of your event.	
	111-111-111			
			(8)	
			ı	
		5 - Day	Report	
**Estimated	Final Total Volume (gallons		Report	
		180000.00	Report	
	ss reach Waters of the State	i): 180000.00		
	ss reach Waters of the State	180000.00	scharge point after	
	ss reach Waters of the State	3): 180000.00 37 2 8: Inspected area of di	scharge point after water receded and	

Missouri Department of Natural Resources

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	* Location Description		Drive and Homestead e). Manhole 7070MH01			
old down the left mouse butto	on and drag the map to move	e slider bar on the left side of t to another location, Optionally ' button to zoom to that locatio	, select a County, City or Zip (in or out. Code from	Use the arrow buttons of the drop downs to zoon	on the edges of the map on to an area, OR you may
ounty: St. Charles	City:	Zip Code:	Address:			Locate
	ction is not allowed at Map So activate the marking tool the	cales less than 1:24,000. In single click on the map to ma	ark the location of your event			
		5. Day	Report			
**Estimated F	Final Total Volume (gallons):	Continue transport	/ Report			
	Final Total Volume (gallons): s reach Waters of the State?	27000.00	Report			

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- Account Settings

· More information

Logout

Event Search

Overflow / Bypass Event Details

Imhal Report

Facility Name: St. Peters Spencer Creek WWTP
Permit No: MO0030970

* Indicates a Required Field

Once you enter the Event End Date & Time fields and Add Event/Save Changes, you will no longer be able to edit this record!

	Event Details
	= at the wastewater treatment plant, Overflow = in the collection system
Confirmation No:	2450
*Type of Event:	SSO (Overflow)
"Wet or Dry Event?	Wet [iii]
*Event Begin Date:	04/18/2013 (MM/DD/YYYY)
*Event Begin Time:	13:00 (HH:MM) Military Time
**Event End Date:	04/19/2013 (MM/DD/YYYY)
**Event End Time:	01:00 (HH:MM) Military Time
Event Duration (hh:mm)	0d:12h:0m:
*Initial Report Date:	04/19/2013 (MM/DD/YYYY)
*initial Report Time:	16:00 (HH:MM) Military Time
Discharged To:	Stormsewer
*Reported By:	Tim Myers
*Immediate Contact	
Ongoing?:	
Estimated Volume at time of Initial Report (gallons):	
Is bypass/overflow reaching Waters of the State?	
Effected Waterbody:	Dardenne Creek
**Cause of Event:	Rain
Cause of Event Comments:	High infiltration rates due to the heavy rains from private sources
Cont. Tool.	growk
Event Type:	A To a significant the same through the same through the same through
Additional Impact:	* To select more than one choice hold down the control key on the keyboard Fish Kill Public Beach or Public Use Area Impacted Dry Weather Release Drinking Water Intakes Affected Release Volume Greater Than 50,000 Gal
	Wet Event Details
*Wet Event Start Date:	04/18/2013 (MM/DD/YYYY)
**Wet Event End Date:	04/19/2013 (MM/DD/YYYY)
*Precipitation Type:	Rain 🔝
**Precipitation Amount (inches):	1.72
*Soil Conditions	Saturated Soils
***	Location Information
	St. Charles
UTM Easting:	
CITAL Standbloom	

[&]quot;Indicates a Required Field for Final Report



Account Settings

· More Information

· Logout

Event Search

Overflow / Bypass Event Details

Initial Report

Facility Name: St. Peters Spencer Creek WWTP
Permit No: MO0030970

* Indicates a Required Field

**Indicates a Required Field for Final Report

Once you enter the Event End Date & Time fields and Add Event/Save Changes, you will no longer be able to edit this record!

	Event Details
Bypass =	at the wastewater treatment plant; Overflow = in the collection system
Confirmation No:	2597
*Type of Event:	Bypass
"Wet or Dry Event?	Wet [
*Event Begin Date:	05/03/2013 (MM/DD/YYYY)
"Event Begin Time:	21:30 (HH:MM) Military Time
**Event End Date:	05/04/2013 (MM/DD/YYYY)
""Event End Time:	00:30 (HH:MM) Military Time
Event Duration (hh:mm)	Od:3h:0m:
*Initial Report Date:	05/06/2013 (MM/DD/YYYY)
*Initial Report Time:	11:09 (HH:MM) Military Time
Discharged To:	Stormsewer
*Reported By:	Lisa Johnson
*Immediate Contact	(636) 477 - 6600
Ongoing?:	
*Estimated Volume at time of Initial Report (gallons):	
is bypass/overflow reaching Waters of the State?	
Effected Waterbody:	Dardenne Creek
**Cause of Event:	Rain
Cause of Event Comments:	High infiltration rates due to heavy rain from private sources.
Event Type:	
Additional Impact:	* To select more than one choice hold down the control key on the keyboard Fish Kill Public Beach or Public Use Area Impacted Dry Weather Release Drinking Water Intakes Affected Release Volume Greater Than 50,000 Gal Wet Event Details
*Wet Event Start Date:	
**Wet Event End Date:	
*Precipitation Type.	Terror Control
**Precipitation Amount (Inches):	
*Soil Conditions:	
Sui Conditions.	Saturated soils
-2	Location Information
	St. Charles
UTM Easting: UTM Northing:	

	Location Descript	on 14 Elm Ct Manhole 70	770MH019		
old down the left mouse bu	tton and drag the map to m	or the slider bar on the left side of to ove to another location. Optionally cate' button to zoom to that locatio	select a County, City or Zip Code	or out. Use the arrow buttons on a from the drop downs to zoom t	the edges of the map or o an area, OR you may
County: St. Charles	City:	Zip Code:	Address		Locate
lease zoom in. Location se	lection is not allowed at Ma	p Scales less than 1:24,000.			
Select the red indicator	to activate the marking tool	then single click on the map to ma	rk the location of your event.		
		5 - Day	Report		
**Estimated	l Final Total Volume (gallon	-	Report		
		s): 20000.00	Report		
	ss reach Waters of the Stat	s): 20000.00 le? 🖋			
		is): 20000.00	scharge point no		
	ss reach Waters of the Stat	s): 20000.00 Inspected area of dievidence of sanitary time of discharge Da	scharge point no / waste. At the irdenne Creek was		
	ss reach Waters of the Stat	s): 20000.00 Inspected area of dievidence of sanitary time of discharge Da	scharge point no / waste. At the ardenne Creek was the Old Town gauge		

Missouri Department of Natural Resources

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 Account Settings More Information Logout





Clean Water Information System

Event Search

Overflow / Bypass Event Details

Initial Report

Facility Name: St. Peters, Central Materials Proc Fac

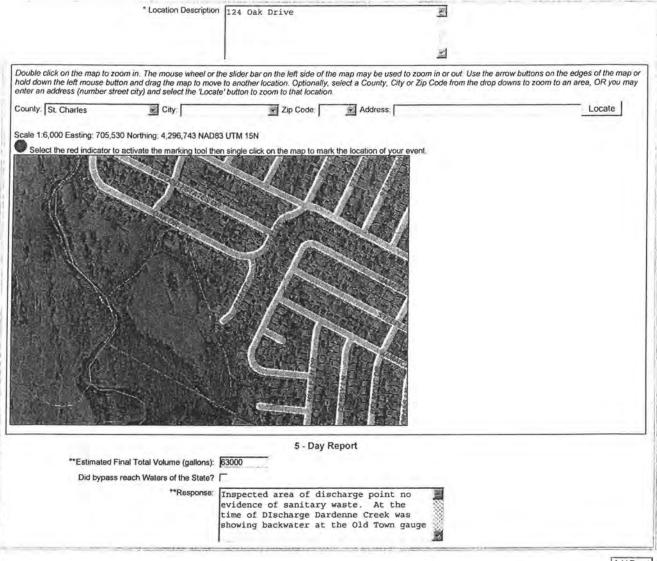
MO0132306

* Indicates a Required Field

**Indicates a Required Field for Final Report rd!

	Event Details	
	= at the wastewater treatment plant, Overflow = in the collection	ion system
Confirmation No:		
*Type of Event:	SSO (Overflow)	
*Wet or Dry Event?	Wet 🖻	
*Event Begin Date:	05/20/2013 (MM/DD/YYYY)	
*Event Begin Time:	23:30 (HH:MM) Military Time	
**Event End Date:	05/21/2013 (MM/DDYYYY)	
**Event End Time:	15:30 (HH:MM) Military Time	
Event Duration (hh:mm)	W.	
*Initial Report Date:	05/22/2013 (MM/DD/YYYY)	
*Initial Report Time:	17:04 (HH:MM) Military Time	
Discharged To:	Stormsewer	
*Reported By:	Lisa Johnson	
*Immediate Contact	(636) 477 - 6600	
Ongoing?:	Seattled Name and Association	
*Estimated Volume at time of Initial Report (gallons):	Contraction of the Contraction o	
Is bypass/overflow reaching Waters of the State?	Г	
Effected Waterbody:	Dardenne Creek	
**Cause of Event:	Rain	
Cause of Event Comments:	High infiltration rates due to heavy rain from private sources	型
		2
and the second second		150
Event Type:		T Charles
Additional	* To select more than one choice hold down the control key of	on the keyboa
Additional Impact:	Fish Kill Public Beach or Public Use Area Impacted Dry Weather Release Drinking Water Intakes Affected Release Volume Greater Than 50,000 Gal	
	Wet Event Details	
"Wet Event Start Date:	05/20/2013 (MM/DD/YYYY)	
**Wet Event End Date:	(05/21/2013 (MM/DD/YYY)	
*Precipitation Type:	Rain 👿	
**Precipitation Amount (inches):	3.75	
*Soil Conditions:	Saturated	
	Location Information	

UTM Northing: 4296741.124



Add Event



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Clean Water Information System

Event Search

· Account Settings

More Information

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Overflow / Bypass Event Details

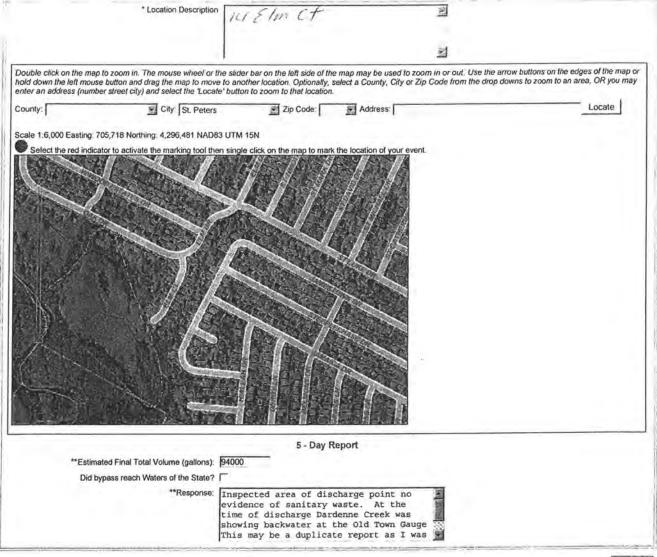
Initial Report

Facility Name: St. Peters, Central Materials Proc Fac Permit No: MO0132306

* Indicates a Required Field

**Indicates a Required Field for Final Report
Once you enter the Event End Date & Time fields and Add Event/Save Changes, you will no longer be able to edit this record!

Event Details
= at the wastewater treatment plant; Overflow = in the collection system
Bypass
Wet M
05/20/2013 (MM/DD/YYY)
23:30 (HH:MM) Military Time
05/21/2013 (MM/DD/YYYY)
15:30 (HH:MM) Military Time
05/22/2013 (MM/DD/YYYY)
16:57 (HH:MM) Military Time
Stormsewer
Lisa Johnson
(636) 477 - 6600
94000
Г
Dardenne Creek
Rain
High infiltration rates due to heavy rain from private sources
*To select more than one choice hold down the control key on the keyboard
Fish Kill Public Beach or Public Use Area Impacted Dry Weather Release Drinking Water Intakes Affected Release Volume Greater Than 50,000 Gal
Wet Event Details
05/20/2013 (MM/DD/YYYY)
05/21/2013 (MM/DD/YYYY)
Rain 🗷
3.75
Saturated
Location Information

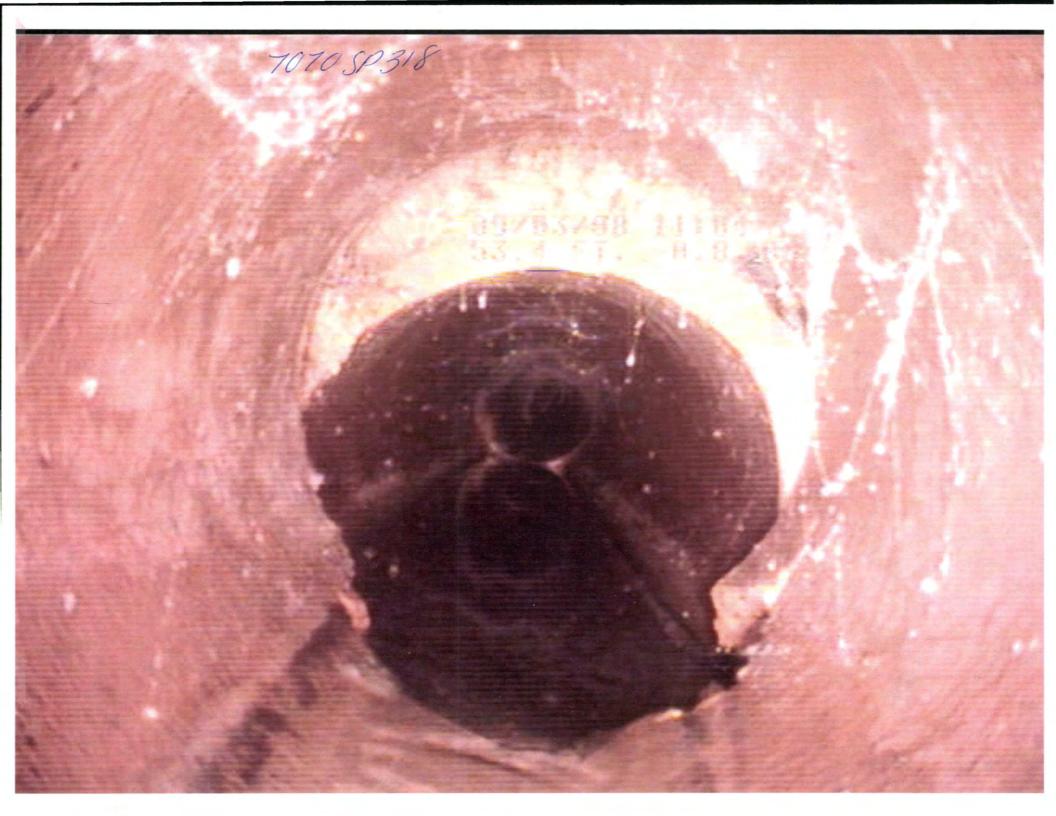


Add Event



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Attachment 6





St. Peters Utilities Department 100 Ecology Drive St. Peters, MO 63376 (636) 278-2221 Ext. 573 Fax (636) 278-2421

#2

Site Data

M.H. Stop

7070MH314

Project Name TV Partial Slipline FY 14

Site ID 7070SP315 City St. Peters

Street

Preakness Dr.

M.H. Depth 6.6

Final Dist(ft) +105.5

Starting Dist.

Pipe Size(in)

8.0

10/28/2013 10:10:11 AM Type of Pipe

Date

Clay

Time

Direction Away-D

M.H. Start

7070MH315

Surface Conditio Grass Yard

Pict 1 Pict 2 Video

Distance Category **Category Details** 4.0 Pipe Problem Hole 5.0 Service Conn. Domestic Flow 45.9 Service Conn. Roots 62.8 Service Conn. Roots 105.5 Other

Can't proceed

Bottom of Pipe Missing

Comments



St. Peters Utilities Department 100 Ecology Drive St. Peters, MO 63376 (636) 278-2221 Ext. 573 Fax (636) 278-2421

Photo Data for Project: 7070

WG-RH

Site ID	City		Street	Inspection I	
From Manho	ole -	To Manhole	Pipe Size	Type of Pipe	Direction
Observation ID	Category Pipe Problem	Category		Clock Position	Severity Level
Operator		Observation Comr	nent	Surfa	ce Condition

Distance(ft/m):

2.0

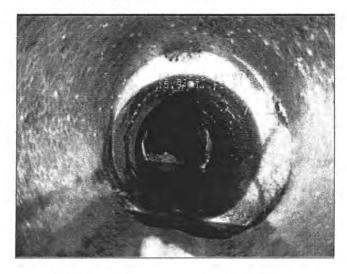


Photo #1

129691.jpg



Photo #2

229691.jpg





Photo Data for Project: 7070

Site ID	City		Street	Inspection 11/15/201	
From Manho	le	To Manhole	Pipe Size	Type of Pipe	Direction
Observation ID	Category Pipe Problem		y Details apsed	Clock Position	Severity Level
Operator	-	Observation Cor	nment	Surfa	ce Condition

Distance(ft/m):

2.0

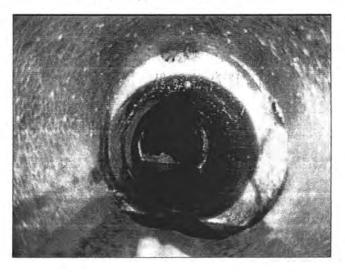


Photo #1

129691.jpg

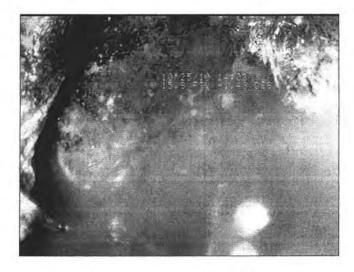


Photo #2

229691.jpg

Steeplechase

Pipe	Pipe Length (feet)	Check Completed	Upstream Manhole	Downstream Manhole	Pipe Size	Pipe Material	Date Completed	TV Inspection Required (Y or N)	Root Severity Grit, etc.
7070SP053	7		7070MH053	7070MH055	8	VCP	1-31-13	N	L Bottom missing in
7070SP055	109		7070MH055	7070MH054	10	VCP	1-31-13	N	L MH 7010mH055
7070SP057	153		7070MH057	7070MH055	8	VCP	1.31.13	N	L
7070SP058	229	1	7070MH058	7070MH057	8	VCP	1-2413	N	4
7070SP059	187		7070MH059	7070MH057	8	VCP	1 - 24.13	N	L
7070SP060	200		7070MH060	7070MH059	8	VCP	1-24-13	N	L
7070SP061	230		7070MH061	7070MH060	8	VCP	1-343	N	L
7070SP267	100		7070MH267	7070MH269	8	VCP	1-25.13	N	
7070SP268	23		7070MH268	7070MH267	8	VCP	1-31-13	N	L
7070SP269	62		7070MH269	7070MH270	8	VCP	1-25-13	2	1 -
7070SP270	251		7070MH270	7070MH276	8	VCP	1-25-13	N	L
7070SP271A	363	Peak MH	7070MH271	7070MH270	8	VCP	1-25.13	N	L
7070SP271B	356	Peak MH	7070MH271	7070MH272	8	VCP	1-25-13	N	L
7070SP272	255		7070MH272	7070MH273	8	VCP	1-25.13	N	_
7070SP273	216		7070MH273	7070MH304	8	VCP	1-31-13	N	L
7070SP274	395		7070MH274	7070MH273	8	VCP	1-25-13	N	L
7070SP275	225		7070MH275	7070MH274	8	VCP	1-245-13	2	L
7070SP276	111	N 23	7070MH276	7070MH275	8	VCP	1-25-13	N	L
7070SP277	328		7070MH277	7070MH276	8	Lined- Flush		N	L
7070SP278	347		7070MH278	7070MH277	8	Lined- Flush		N	7.
7070SP279	328		7070MH279	7070MH278	8	PVC/ VCP	1.25.13	1 2	L
7070SP280	364		7070MH280	7070MH270	8	VCP	1-25.13	N	L
7070SP281	356		7070MH281	7070MH280	8	VCP	1.24.13	N	G
7070SP282	283		7070MH282	7070MH281	8	VCP	1.24.13	N	DS MH Buried .
7070SP283	284		7070MH283	7070MH284	8	VCP	1.24.13	N	L
7070SP284	337		7070MH284	7070MH285	8	VCP	1.24.13	N	m
7070SP285	161		7070MH285	7070MH286	8	VCP	1-24-13	N	L
7070SP286	81		7070MH286	7070MH287	8	VCP	1-24-13	V	~
7070SP287	151		7070MH287	7070MH288	8	Lined- Flush		N	2
7070SP288	215		7070MH288	7070MH290	8	Lined- Flush		N	L
7070SP289	191		7070MH289	7070MH288	8	VCP	1-24-13		m

7070SP290	275	7070MH290	7070MH292	8	Lined- Flush	1-24-13	N	L
7070SP291	125	7070MH291	7070MH290	8	VCP	1.2413	N	L
7070SP292	270	7070MH292	7070MH294	8	Lined- Flush	1-24-13	N	4
7070SP293	136	7070MH293	7070MH292	8	VCP	1-24-13	N	L
7070SP294	204	7070MH294	7070MH298	8	VCP	1-24-13	N	L
7070SP295	128	7070MH295	7070MH294	8	VCP	1.2413	N	i-
7070SP296	404	7070MH296	7070MH295	8	VCP	1.24.13	N	H
7070SP297	220	7070MH297	7070MH296	8	VCP	1.2413	У	H
7070SP298	330	7070MH298	7070MH302	8	VCP	1-24-13	N	L
7070SP299	144	7070MH299	7070MH298	8	VCP	1.24.13	N	L
7070SP300	278	7070MH300	7070MH299	8	VCP	1-24-13	N	L
7070SP301	396	7070MH301	7070MH300	8	VCP	1:24-13	N	L
7070SP302	399	7070MH302	7070MH304	8	VCP	1-24 13	N	
7070SP303	164	7070MH303	7070MH302	8	VCP	1-31-13	N	1
7070SP304	139	7070MH304	7070MH053	- 8	VCP	1.31.13	N	
7070SP305	316	7070MH305	7070MH303	8	VCP	1.31.13	7	1
7070SP306	256	7070MH306	7070MH305	8	VCP	1:31:13	N	L
7070SP307	387	7070MH307	7070MH306	8	Lined- Flush	1 1.31-13	N	Flush
7070SP308	227	7070MH308	7070MH306	8:	VCP	1.31.13	1	2
7070SP309	270	7070MH309	7070MH308	8	VCP	1.31.13	N	L
7070SP310	252	7070MH310	7070MH309	8	VCP	1.31.13	N	L
7070SP311	249	7070MH311	7070MH310	8	VCP	13113	2	L
7070SP312	205	7070MH312	7070MH311	8	VCP	1.25.83	17	L .
7070SP313	381	7070MH313	7070MH312	8	VCP	1-25 13	2	L
7070SP314	257	7070MH314	7070MH311	8	VCP	1-31-13		~
7070SP315	200	7070MH315	7070MH314	8	VCP	1.31.13	*	Possible Offset Dr protrude
7070SP316	281	7070MH316	7070MH315	8	VCP	1.31.13	N	
7070SP317	252	7070MH317	7070MH314	8	VCP	1.31.13	N	L
7070SP318	365	7070MH318	7070MH317	8	VCP	1-31-13	¥	Root SAW Wouldn't go through
7070SP319	225	7070MH319	7070MH320	8	VCP	1-31-13	N	
7070SP320	315	7070MH320	7070MH321	8	VCP	13113	N	L
7070SP321	85	7070MH321	7070MH310	8	VCP	1.3113	N	L
7070SP322	235	7070MH322	7070MH321	8	VCP	1.31 18	N	L
7070SP323	314	7070MH323	7070MH322	8	VCP	1-31-13	N.	L
7070SP324	256	7070MH324	7070MH323	8	VCP	1-31-13	N	
7070SP374	173	7070MH374	7070MH269	8	VCP	1-25-13	2	L

Total	16,011				

1973 feet

Lined



			Total Length City 78 ST.PETERS MO.		
ertificate Number	Street Address 7 JAMAICA DR.	Location Details			
Purpose	Weather		me Length Surveyed		
ine Assessment	Dry	02/18/2013 10:5	5 AM 78		
	N/A	N/A 7 JAMAICA DR. Purpose Weather	N/A 7 JAMAICA DR. Purpose Weather Date Ti		

Ftg. Code Description

0.0 AMH Access Point - Manhole

Position Comment 7070MH286= 8' DEEP

78.0 AMH Access Point - Manhole

3



	OMH297 eyor's Nar	ne	7070MH296 Certificate Number	8 Vitrified Clay Street Address		215 S Location Details	T.PETERS MO.
July	PAT		N/A	20 BELMONT DR.		Location Details	
Direct			Purpose Routine Assessment	Weather Dry	02	Date Time 2/18/2013 10:37 AM	Length Surveye
400	nal Inform	v.ev.	Produite / Bosconion		- 02	10.07741	
	ECHASE						
-			Description	Pe	ositio	on Comment	
P T	0.0	AMH	Access Point - Manhole			7070MH297= 8' DEEP	
/							
-	∘19.1	TFA	Tap, Factory Made: Active		3		
- 8		TE4				FULL OF PROTE	
	→ 34.2	IFA	Tap, Factory Made: Active		9	FULL OF ROOTS	
- 6							
- 1							
- 6							
- 8							
-	→80.6	TFA	Tap, Factory Made: Active		3		
- 8	→94.4	TEA	Tap, Factory Made: Active		9		
- 10	54.4	IFA	rap, ractory made. Active		9		
- 8							
- 10							
-1	→145.2	TFA	Tap, Factory Made: Active		3		
9							
	• 175.2	TFA	Tap, Factory Made: Active		9	FULL OF ROOTS	
	→205.2	TFA	Tap, Factory Made: Active		3		
A			Access Point - Manhole			7070MU206- 91 DEED	
	215.7	AWIT	Access Point - Mannole			7070MH296= 8' DEEP	



Upstream MH 7070MH315	Downstream MH 7070MH314	Size 8				City ST.PETERS MO.
Surveyor's Name	Certificate Number		et Address	Locatio	n Details	
PAT	N/A	14 PRE	AKNESS DR.			
Direction	Purpose	W	eather	Date	Time	Length Surveyed
Downstream	Routine Assessment		Dry	02/18/2013	10:19 AM	200

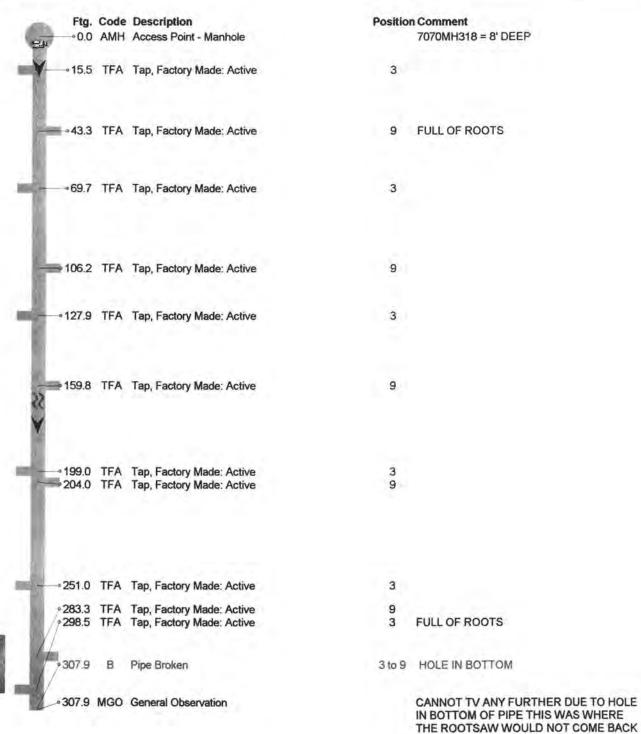


	Ftg.	Code	Description	Position	Comment
-	⊸0.0	AMH	Access Point - Manhole		7070MH315 = 8' DEEP
V	•4.0	Н	Hole in Pipe	5 to 8	HOLE AT JOINT
	67	TEA	Tap, Factory Made: Active	9	
			rap, radiory Made. Admire	3	
-	48.1	TFA	Tap, Factory Made: Active	3	FULL OF ROOTS
	66.3	TFA	Tap, Factory Made: Active	9	
	00.5	ILV	rap, ractory wade. Active	5	



THROUGH WHEN CUTTING ROOTS

Upstream MH 7070MH318	Downstream MH 7070MH317	Size 8	Materia Vitrified Clay	Total Length City 365 ST.PETERS			
Surveyor's Name	Certificate Number		Street Address Locat		ation Details		
Direction	Purpose		Weather	Date	Date Time		Length Surveyed
Downstream	Routine Assessment		Dry	02/18/201	3 9:50	MAC	307



Steeplechase

Pipe	Pipe Length (feet)	Check Completed	Upstream Manhole	Downstream Manhole	Pipe Size	Pipe Material	Date Completed	TV Inspection Required (Y or N)	Root Severity Grit, etc.
7070SP053	7		7070MH053	7070MH055	8	VCP	122110	N	
7070SP055	109		7070MH055	7070MH054	10	VCP	12-21-10	N	
7070SP057	153		7070MH057	7070MHQ55	8	VCP	12-21-10	12	
7070SP058	229		7070MH058	7070MH057	8	VCP	12-20-10	N	
7070SP059	187	3	7070MH059	7070MH057	8	VCP	12-20-10	12	
7070SP060	200	6	7070MH060	7070MH059	8	VCP	12.20-10	12	
7070SP061	230		7070MH061	7070MH060 .	8	VCP	12-20-10	N	
7070SP267	100		7070MH267	7070MH269	8	VCP	12-15-10.	N	
7070SP268	23		7070MH268	7070MH267	8	VCP	12-15-10	N	
7070SP269	62		7070MH269	7070MH270	8	VCP	12-15-10	N	
7070SP270	251	1	7070MH270	7070MH276	8	VCP	12-15-10	IN	
7070SP271A	363	Peak MH	7070MH271	7070MH270	8	VCP		1	
7070SP271B	356	Peak MH	7070MH271	7070MH272	8	VCP	12-20-10	D	
7070SP272	255		7070MH272	7070MH273	8	VCP	12-20-10	N	
7070SP273	216	4	7070MH273	7070MH304	8	VCP	12-21-10	N	
7070SP274	395		7070MH274	7070MH273	8	VCP	12.15.10	N	
7070SP275	225		7070MH275	7070MH274	8	VCP	1215-10	N	
7070SP276	111		7070MH276	7070MH275	8	VCP	12-15-10	IN	
7070SP277	328		7070MH277	7070MH276	8	Lined do no			
7070SP278	347	-	7070MH278		8	Lined do no			
7070SP279	328		7070MH279	7070MH278	8	PVC/ VCP	12-20:10	N	
7070SP280	364		7070MH280	7070MH270	8	VCP	12510	N	
7070SP281	356		7070MH281	7070MH280	8	VCP	12-15-10	N	
7070SP282	283	4 4 4 4 4	7070MH282	7070MH281	8	VCP	12-15-10	N	
7070SP283	284		7070MH283	7070MH284	8	VCP	12-21-10	N	
7070SP284	337		7070MH284	7070MH285	8	VCP	12-21-10	N	
7070SP285	161		7070MH285	7070MH286	8	VCP	12-21-10	N	
7070SP286	81		7070MH286	7070MH287	8	VCP	12-21-16	N	
7070SP287	151	- 177	7070MH287	7070MH288	8	Lined do no	ot cut		
7070SP288	215		7070MH288	7070MH290	8	Lined do no	ot cut		
7070SP289	191	1 10 10 10 10	7070MH289	7070MH288	8	VCP		V	

7070SP290 275 7070MH290 | 7070MH292 8 Lined do not cut 7070SP291 125 7070MH291 7070MH290 8 VCP 12-20:10 7 7070SP292 270 7070MH292 | 7070MH294 8 Lined do not cut 7070SP293 136 7070MH293 | 7070MH292 8 VCP 1220-10 N 7070SP294 204 7070MH294 | 7070MH298 8 VCP N 12-20-10 7070SP295 128 7070MH295 | 7070MH294 VCP 8 N 17-20-10 7070SP296 404 7070MH296 | 7070MH295 8 VCP 12.20.10 7070SP297 220 7070MH297 | 7070MH296 VCP 8 1220-10 N 7070SP298 330 7070MH298 | 7070MH302 8 VCP 12-21-10 7070SP299 144 7070MH299 | 7070MH298 8 VCP V 12-20-10 7070SP300 278 7070MH300 | 7070MH299 8 VCP N 12-20-10 7070SP301 396 VCP 7070MH301 7070MH300 8 12:20-10 7070SP302 399 7070MH302 | 7070MH304 8 VCP 12-21-10 N 7070SP303 164 7070MH303 | 7070MH302 8 VCP 12-21-10 7070SP304 139 8 VCP 7070MH304 | 7070MH053 12-21-10 N 7070SP305 316 7070MH305 | 7070MH303 8 VCP 12:21-10 N 7070SP306 1221-10 N 256 7070MH306 | 7070MH305 8 VCP 7070SP307 387 7070MH307 | 7070MH306 8 1 Lined do not cut 7070SP308 227 7070MH308 | 7070MH306 8 VCP 12-21-10 N 7070SP309 270 7070MH309 | 7070MH308 8 VCP N 12-21-10 7070SP310 252 7070MH310 | 7070MH309 8 VCP 12-21-10 N 7070SP311 249 8 VCP 7070MH311 | 7070MH310 12-21-10 N 7070SP312 205 7070MH312 | 7070MH311 8 VCP 12-20-10 N 7070SP313 381 7070MH313 | 7070MH312 8 VCP 12-20-10 8 VCP 7070SP314 257 7070MH314 | 7070MH311 N 12-20-10 7070SP315 200 7070MH315 | 7070MH314 8 VCP N 17-20-10 VCP 7070SP316 281 7070MH316 | 7070MH315 8 N 12-20-10 7070SP317 8 VCP 252 7070MH317 | 7070MH314 12-20-10 N 7070SP318 365 7070MH318 | 7070MH317 8 VCP 12-21-10 12-21-10 7070SP319 7070MH319 | 7070MH320 8 VCP N 225 7070SP320 7070MH320 | 7070MH321 8 VCP V 315 12-21-10 7070SP321 85 7070MH321 | 7070MH310 8 VCP 12:21-10 N 7070SP322 235 7070MH322 | 7070MH321 8 VCP 12-21-10 N 7070SP323 7070MH323 | 7070MH322 8 VCP 314 12-21-10 N VCP N 7070SP324 256 7070MH324 | 7070MH323 8 1221-10 N 7070SP374 7070MH374 | 7070MH269 VCP 173 8 12.15.10

Total	16,011			·	

1973 foot deduct

Lined

2



Upst 707	tream MH 70MH057	D	ownstream MH 7070MH055	Size 8	Mater Vitrified Cla		Total L	ength	City ST.PETERS			
	veyor's Nam JOEY	е	Certificate Number	Si	Street Address Location Details CHURCHILL DOWNS CHURCHILL DOWNS & JAMAICA							
Direc Downsi	tion tream	- 1	Purpose Maintenance Related		Weather Snow	Date 02/07/20		Time 10:49 AM	Length Surveye			
TV INSE	PECTION Ftg.	Code	Description Access Point - Manhole			Position Co 707	mment 70MH057=8					
	∘26.7	TFA	Tap, Factory Made: Acti	ive		10						
₩	∘94.6	TFA	Tap, Factory Made: Acti	ve		10						



	ostream MH 070MH271		7070MH270 8	Materia Vitrified Clay			Length 363	City ST.PETERS
Sı	JOEY	me	Certificate Number 11753	Street Address JAMESTOWN DR.		Location Deta JAMESTOWN		
	ection nstream		Purpose Maintenance Related	Weather Snow		Date /27/2011	Time 2:46 PM	Length Surveye
	tional Infom	nation					- 0	
2)			Description Access Point - Manhole	P	ositio	n Comment 7070MH271=	=8'	
1	i .							
	-38.8	TFA	Tap, Factory Made: Active		10			
-	∘51.1	TFA	Tap, Factory Made: Active		2			
ı,	99.3		Tap, Factory Made: Active Tap, Factory Made: Active		10	ROOTS IN S	SERVICE	
	164.8	TFA	Tap, Factory Made: Active		10			
						27.		
?	190.1	JOM	Crack Circumferential Joint Offset (displaced): Medium	1	2 to 12	2		
1	192.4	TFA	Tap, Factory Made: Active		2			
	224.9		Tap, Factory Made: Active		10			
	- •232.2 - •238.0		Tap, Factory Made: Active Crack Circumferential	1	2 2 to 12	2		
		TFA	Tap, Factory Made: Active		10			
10	292.6		Tap, Factory Made: Active		2			
	328.8 →333.8		Crack Circumferential Joint Offset (displaced): Medium	t	2 to 12	2		
	345.7 348.1		Tap, Factory Made: Capped General Observation		10	SAG		
H	All Inc.		Access Point - Manhole			7070MH270=	=8'	





*187.7 MGO General Observation

∘191.3 JOM Joint Offset (displaced): Medium ∘195.9 AMH Access Point - Manhole

*191.3 CM Crack Multiple

70	stream N 070MH28	9		7070MH288 Size	Mate Vitrified 0		Total Length be 195	City ST.PETERS		
Sui	rveyor's	Nam	e	Certificate Number	Street Address		Location Details			
	JOEY	,		11753	JAMAICA DR		JAMAICA & FLAMINGO			
Dire	ction			Purpose	Weather		Date Time Length S			
	stream		- 1	Maintenance Related	Snow	0	02/07/2011 8:49 AM	195		
ddit	ional Inf	forma	tion							
	SPECTIO									
			0-4-				A. 1.4.0			
. 7				Description Access Point - Manhole		Positi	ion Comment 7070MH289=5'3"			
Th.		∘3.0	TFC	Tap, Factory Made: Capped		2				
1		11.3	TEA	Tap, Factory Made: Active		10	DOOTS IN SERVICE			
	-	11.3	IFA	rap, Factory Made. Active		10	ROOTS IN SERVICE			
	1									
	- 7	72.6	TFA	Tap, Factory Made: Active		10				
		31.3	TFA	Tap, Factory Made: Active		10				
- 1										
- 1										

7070MH288=6'

SAG

6 to 6

Westwood Estates

Pipe Number	Pipe Length	Check Completed	Upstream Manhole	Downstream Manhole	Pipe Size	Pipe Material	Date Completed	TV Inspection Required (Y or N)	Result (Completed or Follow-up)	Root Severity Grit, etc.
6970SP049	394		6970MH049	6970MH050	8	VCP	2-4:13	7.7	C	L
6970SP050	271		6970MH050	6970MH051	8	VCP	2-4.13	2	6	L
6970SP051	330		6970MH051	7070MH013	8	VCP	2-4.13	N	6	L
6970SP052	148		6970MH052	7070MH009	8	VCP	2-4.13	N	-	L
6970SP332	161		6970MH332	6970MH049	8	VCP	24 13	N	C	L
6970SP354	20		6970MH354	6970MH035	10	VCP	2.6-13	7	C.	1
6970SP035	120		6970MH035	6970MH524	8&12	DI Siphon	2-11-13	N	C	1
7070SP007	211		7070MH007	7070MH008	8	VCP	2.4.13	N	C	L
7070SP008	268		7070MH008	7070MH009	8	VCP	2-4.13	N	6	1
7070SP009	48		7070MH009	7070MH008	8	VCP	2-4-13	2	6	1
7070SP010	282		7070MH010	7070MH013	8	VCP	2-4-13	N	6	L
7070SP011	171		7070MH011	7070MH010	8	VCP	2-4-13	N	6	2
7070SP012	217		7070MH012	7070MH010	8	VCP	2413	7	6	L
7070SP013	411		7070MH013	7070MH016	8	VCP	2.4.13	N	C	-
7070SP014	310		7070MH014	7070MH013	8	VCP	2-4-13	N	C	1_
7070SP015	155		7070MH015	7070MH014	8	VCP	2.4.13	N	6	L
7070SP016	313		7070MH016	6970MH354	10	VCP	2-6-13	N	6	4
7070SP017	350		7070MH017	6970MH354	10	VCP	2-4-13	N	(L
7070SP018	348		7070MH018	7070MH017	10	VCP	2-4-13	N	C	L .
7070SP019	210		7070MH019	7070MH018	10	VCP	2-6-13	N	C	L
7070SP020	193		7070MH020	7070MH019	10	VCP	2-4-13	N	C	1
7070SP021	280		7070MH021	7070MH020	8	VCP	2-4.13	N	C	L
7070SP022	259		7070MH022	7070MH021	8	VCP	2.4-13	N	C	1
7070SP023	324		7070MH023	7070MH021	8	VCP	2.4.13	N	C	L
7070SP024	244		7070MH024	7070MH023	8	VCP	2.413	N	C	1_
7070SP025	290		7070MH025	7070MH024	8	VCP	2413	N	C	
7070SP026	268		7070MH026	7070MH023	8	VCP	2.413	N	C	1-
7070SP048	363		7070MH048	7070MH049	10	VCP	2.4.13	N	6	T.
7070SP049	354		7070MH049	7070MH050	10	VCP	24.13	12	C	L
7070SP050	150		7070MH050	7070MH051	10	VCP	2.4.13	L'N	C	1_

								, ,	
7070SP051	30	7070MH051	7070MH054	10	VCP	2 4.13	N	6	1 4
7070SP054	164	7070MH054	7070MH020	10	VCP	24.13	7	C	L
Total	7,655								

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Westwood Estates

Pipe Number	Pipe Length	Check Completed	Upstream Manhole	Downstream Manhole	Pipe Size	Pipe Material	Date Completed	TV Inspection Required (Y or N)	Result (Completed or Follow-up)	Root Severity Grit, etc.
6970SP049	394		6970MH049	6970MH050	8	VCP	12.2210	2		
6970SP050	271		6970MH050	6970MH051	8	VCP	1222.0	10		
8970SP051	330		6970MH051	7070MH013	8	VCP	12:22-10	N		
6970SP052	148		6970MH052	7070MH009	8	VCP	12-22-10	N		
3970SP332	161		6970MH332	6970MH049	8	VCP	12:22-10	N		
970SP354	20		6970MH354	6970MH035	10	VÇP		7		
6970SP035	120		6970MH035	6970MH524	8&12	DI Siphon				
7070SP007	211		7070MH007	7070MH008	8	VĆP	12-22-10	N		
7070SP008	268		7070MH008	7070MH009	8	VCP	12-22-10	N		
7070SP009	48		7070MH009	7070MH008	8	VCP	12-22-10	N		
7070SP010	282		7070MH010	7070MH013	8	VCP	12.22.10	N		
7070SP011	171		7070MH011	7070MH010	8	VCP	12.22.10	N.		
7070SP012	217		7070MH012	7070MH010	8	VCP	12-22-10	N.		
7070SP013	411		7070MH013	7070MH016	8	VCP	1-26-11	N		
7070SP014	310		7070MH014	7070MH013	8	VCP				
7070SP015	155		7070MH015	7070MH014	8-	VCP				
7070SP016	313		7070MH016	6970MH354	10	VCP	1-26-11	N		
7070SP017	350		7070MH017	6970MH354	10	VCP	1-24-11	N		
7070SP018	348		7070MH018	7070MH017	10	VCP	12.23-10	N	4	
7070SP019	210		7070MH019	7070MH018	10	VCP	1-240-11	N		
7070SP020	193		7070MH020	7070MH019	10	VCP	12.22.10	N		
7070SP021	280		7070MH021	7070MH020	8	VCP	12/22-10	N.		
7070SP022	259	1	7070MH022	7070MH021	8	VCP	12.22.10	N.	h.	
7070SP023	324		7070MH023	7070MH021	8	VCP	12 22-10	N		
7070SP024	244	*	7070MH024	7070MH023	8	VCP	12-22-10	N		
7070SP025	290		7070MH025	7070MH024	8	VCP	12/22/0	N		
7070SP026	268		7070MH026	7070MH023	8	VCP	12.22-10	N		
7070SP048	363	*	7070MH048	7070MH049	10	VCP	12-02-10	N		1
7070SP049	354		7070MH049	7070MH050	10	VCP	- Th			
7070SP050	150		7070MH050	7070MH051	10	VCP				· / / · · · · · · ·

7070SP051	30	7070MH051	7070MH054	10	VCP	12-23-10	P,		
7070SP054	164	7070MH054	7070MH020	10	VCP	12.23-10	N		
Total	7,655							_	

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Upstream MH 6970MH049	Downstream MH Size 6970MH050 8	e Material Vitrified Clay P	Total Leng	h City ST.PETERS		
		3 10 07 7 30 10	Location Details	OT. PETERO		
Surveyor's Nam JOEY	e Certificate Number	Street Address oak dr				
Direction	Purpose	Weather	westwood estates Date T	ime Length Surveye		
Downstream	Maintenance Related	Snow		50 AM 390		
Additional Informa	ation					
VINSPECTION						
-						
	Code Description AMH Access Point - Manhole	Pos	ition Comment 6970MH049=11'			
50			359,710037 17 343			
Y						
*51.1	TFA Tap, Factory Made: Active		2			
1						
•112.1	TFA Tap, Factory Made: Active	1	0			
2						
3						
1						
		13				
243.8	TFA Tap, Factory Made: Active	1	0			
- 10						
8						
- 8						
274.0	MCO. Conomi Observation		646			
*3/4.8	MGO General Observation		SAG			
, 390.9	AMH Access Point - Manhole		6970MH050=6'			

Steeplechase

Pipe	Pipe Length (feet)	Check Completed	Upstream Manhole	Downstream Manhole	Pipe Size	Pipe Material	Date Completed	TV Inspection Required (Y or N)	Root Severity Grit, etc.
7070SP053	7 .		7070MH053	7070MH055	8	VCP	11-10-11	N	L
7070SP055	109		7070MH055	7070MH054	10	VCP	11-10-11	1 2	L
7070SP057	153		7070MH057	7070MH055	8	VCP	11 8.11	N	4
7070SP058	229		7070MH058	7070MH057	8	VCP	11-8-11	N	1.
7070SP059	187		7070MH059	7070MH057	8	VCP	11-8-11	N	L
7070SP060	200		7070MH060	7070MH059	8	VCP	11-8-11	N	2
7070SP061	230		7070MH061	7070MH060	8	VCP	11-10-11	N	L
7070SP267	100		7070MH267	7070MH269	8	VCP	11 8:11	N	L
7070SP268	23		7070MH268	7070MH267	8	VCP	11.8-11	N	L
7070SP269	62		7070MH269	7070MH270	8	VCP	11-9-11	N	1.
7070SP270	251		7070MH270	7070MH276	8	VCP	11.8.11	N	L
7070SP271A	363	Peak MH	7070MH271	7070MH270	8	VCP	11.8.11	l N	L
7070SP271B	356	Peak MH	7070MH271	7070MH272	8	VCP	11-8-11	N	L
7070SP272	255		7070MH272	7070MH273	8	VCP	11.8.11	N	1
7070SP273	216		7070MH273	7070MH304	8	VCP	11-10-11	N	7
7070SP274	395		7070MH274	7070MH273	8	VCP	11-8-11	N	L
7070SP275	225		7070MH275	7070MH274	8	VCP	11-8-11	N	1
7070SP276	111	1	7070MH276	7070MH275	8	VCP	11-8-11	V	Ĩ.
7070SP277	328		7070MH277	7070MH276	8	Lined- Flush		N	1
7070SP278	347		7070MH278	7070MH277	8	Lined- Flush		N	Ĩ
7070SP279	328		7070MH279	7070MH278	8	PVC/ VCP	1/26-11	N	1
7070SP280	364		7070MH280	7070MH270	8	VCP	11-8-11	N	ī
7070SP281	356		7070MH281	7070MH280	8	VCP	11-8-11	N	L
7070SP282	283		7070MH282	7070MH281	8	VCP	11-8-11	N	Ĩ
7070SP283	284		7070MH283	7070MH284	8	VCP	11-9-11	N	L
7070SP284	337		7070MH284	7070MH285	8	VCP	11-9-11	N	L
7070SP285	161		7070MH285	7070MH286	8	VCP	11-9-11	Ň	L
7070SP286	81		7070MH286	7070MH287	8	VCP	11-9-11	N	L
7070SP287	151		7070MH287	7070MH288	8	Lined- Flush		N	Ī
7070SP288	215		7070MH288	7070MH290	8	Lined- Flush		N	Ž.
7070SP289	191		7070MH289	7070MH288	8	VCP	119-11	N	L

7070SP290	275	7070MH290	7070MH292	8	Lined- Flush	11-9-11	N	4
070SP291	125	7070MH291	7070MH290	8	VCP	11-9-11	N	L
070SP292	270	7070MH292	7070MH294	8	Lined- Flush	11-9-11	2	L
7070SP293	136	7070MH293	7070MH292	8	VCP	11-9-11	N	L
7070SP294	204	7070MH294	7070MH298	8	VCP	11-9-11	N	~
7070SP295	128	7070MH295	7070MH294	8	VCP	11-9-11	N	L
7070SP296	404	7070MH296	7070MH295	8	VCP	11-9-11	N	L
7070SP297	220	7070MH297	7070MH296	8	VCP	11-9-11	V	Rootsaw wouldn't gothro
7070SP298	330	7070MH298	7070MH302	8	VCP	11-10-11	N	L 3
7070SP299	144	7070MH299	7070MH298	8	VCP	11-9-11	N	
7070SP300	278	7070MH300	7070MH299	8	VCP	119.11	N	L
7070SP301	396	7070MH301	7070MH300	8	VCP	11-9-11	2	L
7070SP302	399	7070MH302	7070MH304	8	VCP	11-10-11	N	L
7070SP303	164	7070MH303	7070MH302	8	VCP	11-10-11	N	L
7070SP304	139	7070MH304	7070MH053	8	VCP	11-10-11	N	L
7070SP305	316	7070MH305	7070MH303	8	VCP	11-10-11	N	L
7070SP306	256	7070MH306	7070MH305	8	VCP	11-10-11	N	L
7070SP307	387	7070MH307	7070MH306	8	Lined- Flush	11-10-11	N	L
7070SP308	227	7070MH308	7070MH306	8	VCP	11-10-11	V	Rootsaw wouldn't gothrou
7070SP309	270	7070MH309	7070MH308	8	VCP	11-10-11	N	L
7070SP310	252	7070MH310	7070MH309	8	VCP	11-10-11	N	
7070SP311	249	7070MH311	7070MH310	8	VCP	11:10:11	Y	Rootsum - hungup.
7070SP312	205	7070MH312	7070MH311	8	VCP	11-9-11	N	2
7070SP313	381	7070MH313	7070MH312	8	VCP	11-9-11	N	L
7070SP314	257	7070MH314	7070MH311	8	VCP	11-9-11	N	L
7070SP315	200	7070MH315	7070MH314	8	VCP	11-9-11	2	L
7070SP316	281	7070MH316	7070MH315	8	VCP	11-9-11	N	1
7070SP317	252	7070MH317	7070MH314	8	VCP	11-9-11	N	L
7070SP318	365	7070MH318	7070MH317	8	VCP	11-9-11	N	L
7070SP319	225	7070MH319	7070MH320	8	VCP	11-9-11	N	L
7070SP320	315	7070MH320	7070MH321	8	VCP	11-9-11	N	
7070SP321	85	7070MH321	7070MH310	8	VCP	11-10-11	N	2
7070SP322	235	7070MH322	7070MH321	8	VCP	11-9-11	N	
7070SP323	314	7070MH323	7070MH322	8	VCP	11-9-11	N	1
7070SP324	256	7070MH324	7070MH323	8	VCP	11-9-11	N	Ĺ
7070SP374	173	7070MH374	7070MH269	8	VCP	11-8-11	N	1

		- 1111			
Total	16,011				

1973 feet

Lined





 Upstream MH
 Downstream MH
 Size

 7070MH276
 7070MH275
 8
 Vi

Material Vitrified Clay Pipe Total Length

City ST.

PETERS/STEEPLECHA SE

Surveyor's Name Certificate Number Street Address Location Details
MATT U-1110-11752 STEEPLCHASE DR FRONT YARD

metion Burness Weather Data Time

 Direction
 Purpose
 Weather
 Date
 Time
 Length Surveyed

 Downstream
 Maintenance Related
 Dry
 11/21/2011
 7:52 AM
 111

Additional Information

ROOTSAW DID NOT MAKE IT ALL THE WAY THROUGH

Ftg. Code Description

• 0.0 AMH Access Point - Manhole

Position Comment 7070MH276

Y

*25.7 TFA Tap, Factory Made: Active

10

*31.4 CC Crack Circumferential

4 to 5

ă

94.5 MWLS Water Level: Sag

111.0 AMH Access Point - Manhole

7070MH275

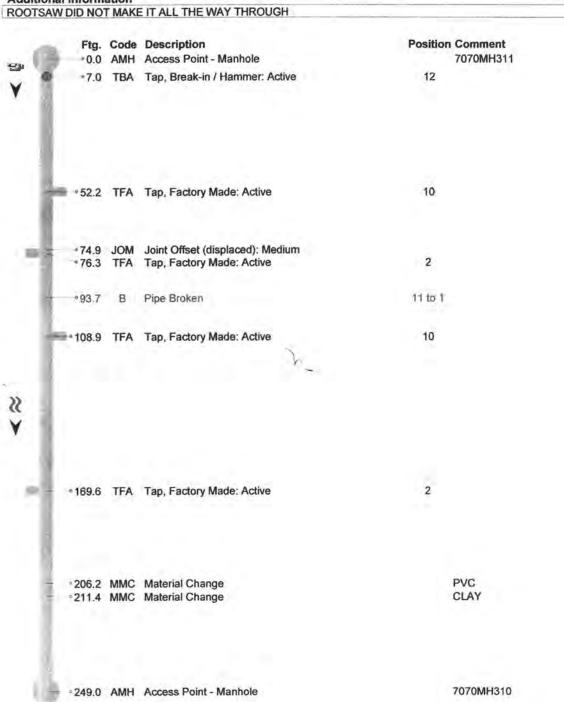




Upstream MH Downstream MH Size Material Total Length
7070MH311 7070MH310 8 Vitrified Clay Pipe 249 ST.
PETERS/STEEPLECHA SE

Surveyor's Name MATT	U-1110-11752	Street Address 21 CALUMET DR.		Location Details FRONT YARD			
Direction	Purpose	Weather	Date	Time	Length Surveyed		
Downstream	Maintenance Related	Dry	11/17/2011	2:44 PM	249		

Additional Information ROOTSAW DID NOT MAKE IT ALL THE WAY THROUGH





Upstream MH Downstream MH Size Material Total Length City
7070MH308 7070MH306 8 Vitrified Clay Pipe 227 ST.
PETERS/STEEPLECHA
SE

Surveyor's Name MATT	U-1110-11752	Street Address 14 HIALEA DR		Location Details FRONT YARD			
Direction	Purpose	Weather	Date	Time	Length Surveyed		
Downstream Maintenance Related		Dry	11/17/2011	2:00 PM	227		
Additional Information	n .						

ROOTSA	N DID NO	T MAKE	IT ALL THE WAY THROUGH	
eg. (} Y			Description Access Point - Manhole Fracture Multiple	Position Comment 7070MH308
-	•24.3		Tap, Factory Made: Active Tap, Factory Made: Active	2 10
	₹45.0	JOM	Joint Offset (displaced): Medium	
	■ - 89.6	TFA	Tap, Factory Made: Active	10
w W			Water Level: Sag Tap, Factory Made: Active	2
Y	+139.0 == +144.7		Joint Offset (displaced): Medium Tap, Factory Made: Active	10
	4 160.8 4 161.3	MWLS JOM	Water Level: Sag Joint Offset (displaced): Medium	
-1	172.5		Tap, Factory Made: Active Tap, Factory Made: Active	10
4			Material Change	PVC
(2		AMH	Material Change Access Point - Manhole	CLAY 7070MH306



7070MH29	//H	De	7070MH296 8	Materi Vitrified Cla		Total	Length 215 PE1	City ST. TERS/STEEPLECHA SE
Surveyor's MATT	Name		Certificate Number U-1110-11752	Street Address 20 BELMOUNT		FRONT YARD		
Direction Downstream		N	Purpose Maintenance Related	Weather Dry	1	Date 1/17/2011	Time 1:30 PM	Length Surveye
dditional Inf			IT ALL THE WAY THROUGH					
			Description Access Point - Manhole	P	Positio	on Comment 7070MH297		
	18.6	TFA	Tap, Factory Made: Active		2			
-	34.2	TFA	Tap, Factory Made: Active		10	COMPLETL	Y FULL OF ROO	TS
	80.7	TFA	Tap, Factory Made: Active		2			
L	95.0	TFA	Tap, Factory Made: Active		10			
	31.8	RFJ	Roots, Fine: Joint		12			
	44.8	TFA	Tap, Factory Made: Active		2			
-1	74.9	TFA	Tap, Factory Made: Active		10			
- 2	05.2	TFA	Tap, Factory Made: Active		2			
-2	15.0 A	АМН	Access Point - Manhole			7070MH296		

St. Peters Estates

Pipe Number	Pipe Length	Check Completed	Upstream Manhole	Downstream Manhole	Pipe Size	Pipe Material	Date Completed	TV Inspection Required (Y or N)	Result (Completed or Follow-up)	Root Severity
7070SP042	258		7070MH042	7070MH043	8	VCP	4-24-12	N		
7070SP043	310		7070MH043	7070MH044	8	VCP	4.24.12	N		
7070SP044	332		7070MH044	7070MH045	8	CIPP	4.24.12	N		
7070SP045	39		7070MH045	7070MH048	8	VCP	4.24.12	N		
7070SP046	127		7070MH046	7070MH045	8	VCP	4.24.12	V		
7070SP047	190		7070MH047	7070MH046	8	VCP	4-24-12	N		
7070SP225	82		7070MH225	7070MH226	8	VCP	4.24.12	N		
7070SP226	174		7070MH226	7070MH227	8	VCP	4.24.12	N		
7070SP227	13		7070MH227	7070MH228	8	VCP	4.24.12	N		
7070SP228	283		7070MH228	7070MH238	8	VCP	4.24.12	N		
7070SP229	267		7070MH229	7070MH228	8	VCP	4.24.12	N		
7070SP230	209		7070MH230	7070MH229	8	VCP	4.24.12	N		
7070SP231	402		7070MH231	7070MH232	8	VCP	4.24-12	N		
7070SP231	300		7070MH231	7070MH230	8	VCP	4-24-12	N		
7070SP232	128		7070MH232	7070MH233	8	VCP	4-24-12	N		
7070SP233	258		7070MH233	7070MH234	8	VCP	4.24.12	N		
7070SP234	275		7070MH234	7070MH236	8	VCP	4-24.12	N	-	
7070SP235	364			7070MH234	8	VCP	4-24-12	N		
7070SP236	280		7070MH236	7070MH239	8	VCP	4.24-12	N		
7070SP237	365		7070MH237	7070SP236	8	VCP	4-24-12	N		
7070SP238	284		7070MH238		8	VCP	4.24-12	N		
7070SP239	252		7070MH239	7070MH240	8	VCP	4-24-12	N		
7070SP240	71		7070MH240	7070MH266	8	VCP	4.25.12	N		
7070SP241	400		7070MH241	7070MH240	8	CIPP	4-24-12	N		
7070SP242	399			7070MH241	8	CIPP	4 74-12	N		
7070SP251	222		7070MH251		8	VCP	4-24-12	N		
7070SP252	254		7070MH252		8	VCP	4.24-12	N		
7070SP253	252		7070MH253		8	VCP	4-24.12	N	1	
7070SP254	239		7070MH254		8	VCP	4-24.12	N		-
7070SP255	250			7070MH257	8	VCP	424.12	N		
7070SP256	230			7070MH255	8	VCP	4 24-12	N		

Y.,

7070SP257	215	7070MH257	7070MH042	8	VCP	4-24-12	2	
7070SP258	391	7070MH258	7070MH257	8	VCP	4-24-12	2	
7070SP259	387	7070MH259	7070MH258	8	VCP	4-24 12	2	
7070SP260	335	7070MH260	7070MH261	8	VCP	4-24-12	N	
7070SP261	317	7070MH261	7070MH262	8	VCP	4-24-12	2	
7070SP262	250	7070MH262	7070MH265	8	VCP	4-24-12	N	
7070SP263	404	7070MH263	7070MH264	8	VCP	4.24.12	Y	
7070SP264	250	7070MH264	7070MH265	8	VCP	4-24-12	N	
7070SP265	182	7070MH265	7070MH266	8	VCP	4 25.12	N	
7070SP266	88	7070MH266	7070MH267	8	VCP	4.25.12	2	
7070SP267	20	7070MH267	7070MH268	8	VCP	425-12	N	
7070SP268	85	7070MH268	7070MH269	8	VCP	4.25.12	N	
Total	10,432						N	

St. Marys

Pipe Number	Pipe Length	Check Completed	Upstream Manhole	Downstream Manhole	Pipe Size	Pipe Material	Date Completed	TV Inspection Required (Y or N)
6970SP044	138		6970MH044	6970MH045	8	VCP	1-10.11	7
6970SP045	328		6970MH045	6970MH046	8	VCP	1-10-11	N
6970SP046	333		6970MH046	6970MH047	8	VCP	1-10-11	N
6970SP047	318		6970MH047	7070MH0.05	8	VCP	1-10-11	D
7070SP001	311		7070MH001	7070MH002	8	VCP	1-10-11	2
7070SP002	309	1	7070MH002	6970MH047	8	VCP	1-10-11	N
7070SP003	396		7070MH003	7070MH004	8	VCP	1-10-11	N
7070SP004	261		7070MH004	7070MH005	8	VCP	1-10-11	N
7070SP005	111		7070MH005	7070MH006	8	VCP	1-26-11	N
7070SP006	175		7070MH006	7070MH007	8	VCP	1-24.11	P
7070SP027	235		7070MH027	7070MH026	8	VCP	1-26-11	N.
7070SP028	226		7070MH028	7070MH006	8	VCP	1-26-11	P
7070SP029	404		7070MH029	7070MH028	8	VCP	7-26-11	N
7070SP030	343		7070MH030	7070MH029	8	VCP	1-26-11	N
7070SP031	121		7070EOP031	7070MH030	8	VCP	1-10-11	N
7070SP032	315		7070MH032	7070MH028	8	VCP	1-26-11	D
7070SP033	404		7070MH033	7070MH032	8	VCP	1-26-11	N
7070SP034	298		7070MH034	7070MH033	8	VCP	1-24-11	N
7070SP035	184		7070MH035	7070MH034	- 8	VCP	1.276.11	N
7070SP036	160		7070EOP036	7070MH035	8	VCP	126-11	N.
7070SP037	275		7070MH037	7070MH027	8	VCP	176.11	N
7070SP038	368		7070MH038	7070MH032	8	VCP	1-26.11	N.
7070SP039	388			7070MH038	8	VCP	1-10-11	8-
7070SP040	382			7070MH039	8	VCP	1-10-11	P
7070SP041	387		7070MH041	7070MH042	8	VCP	1-24-11	ν
Total	7,171							





◆356.5 MWLS Water Level: Sag →364.0 AMH Access Point - Manhole

7070MH032

Surveyor's Name				4	ST. PETERES
MATT	Certificate Number U-1110-11752 15 I	Street Address BIRCH ST. ST. MARYS SUBDIVISION	Location Detail	s	
Direction ownstream	Purpose Maintenance Related	Weather Light Rain	Date 02/23/2011	Time 2:14 PM	Length Surveye
dditional Informatio					
7070MH038 Ftg. Co 	de Description MH Access Point - Manhole	Po	sition Comment 7070MH038, 7	FT DEEP, IN G	OOD CONDITION
• 92.5 TF	FA Tap, Factory Made: Active		Ż		
	A Tap, Break-in / Hammer: Active A Tap, Factory Made: Active		2 PVC		

7070MH032, 8' DEEP, IN GOOD CONDITION

Attachment 7



Stantec Consulting Services Inc. 1859 Bowles Avenue Suite 250 St. Louis MO 63026-1944 Tel: (636) 343-3880 Fax: (636) 343-3554

August 29, 2013

Mr. Bill Malach, PE Manager, Water Environment Services City of St. Peters City Hall, PO Box 9 St. Peters Centre Blvd, St. Peter's MO 63376

RE: Steeplechase, Westwood, St. Mary's Sanitary Sewer Service Area Study

Dear Bill,

Thank you for the opportunity to provide an estimate of cost for the above referenced study. We reviewed the information provided including excerpts from the previous sewer study, and information from our discussion of Tuesday, August 27.

The cost information below includes a short description of the task and any deliverables that would be provided and the task cost. Our total estimated cost for the following scope in \$100,500.

Review and Confirm Existing Data

- I. Review Existing Data \$4,000
 Review available CCTV inspections, MH inspections, and most recent smoke testing report. Collect City's GIS and property tax data.
- II. Based on Review Develop Strategy moving forward \$1,000

 Deliverable is a letter report outlining the suitability of existing data to support the project goals, additional data needs (gap analysis) and next steps and anticipated results

Evaluate Service Area for Flows

- III. Evaluate Service Area \$4,000 Combine previous results, a cursory hydraulic capacity analysis, and sewer age study to provide a final micromonitoring and rain gauge layout.
- IV. Conduct Flow monitoring at discharge of sewershed \$5,000
 Install 2 fixed monitors, one in each of the 8" lines upstream of the syphon anticipate 2 months usage, only when the micromonitors and rain gauges are in place

Stantec

August 29, 2013

Reference: Steeplechase, Westwood, St. Mary's Sanitary Sewer Service Area Study

Page 2 of 3

- V. Install Rain Gauges for use during flow monitoring \$2,000

 Two rain gauges for two months to be in service simultaneous with flow monitoring
- VI. Use two rounds of micro monitors to isolate areas and determine magnitude of flow \$26,000 12 micromonitors first round (one month) 5 to 8 micromonitors second round (one month) 2 months with Rain Gauge data (2months)
- VII. Data Analysis and Report \$5,000 Comparison of previous smoke results with micromonitoring. Recommend additional smoke test to confirm individual properties
- VIII. Selectively smoke test areas based on micrometering results \$7,000 Assume 40% of the area will need to be tested at \$0.40/ft.
- IX. Develop a report and meet with the City \$6,000

 Present problem verification report that provides details on what was found with respect to sewer condition and flows. Brainstorm with the City on four alternatives to be developed and evaluated.

Provide Alternative Solutions

X. Evaluate 4 alternatives for SSO reduction potential - \$16,000

Alternatives may include storage alternative, express sewer to main interceptor, pump station, and private property removal. Analysis may require simple hydraulic model, but system wide model is not anticipated. Evaluation will include effectiveness in reducing SSOs, feasibility of the alternatives with respect to property and engineering related issues.

Develop Typical Details

XI. Develop report and meet with city staff: include recommendations on alternatives selected. - \$12,500 Report to provide planning level total project costs, sketches of all alternatives and recommendations on most cost effective approach.

Attend Two Public Meetings - \$12,000

Costs include development of all supporting information, contacting property owners of record, placing placards at entrance to the service area, and providing meeting minutes.

Total Estimated Cost - \$100,500

Stantec

August 29, 2013

Reference: Steeplechase, Westwood, St. Mary's Sanitary Sewer Service Area Study

Page 3 of 3

Additional Comments:

Micrometer data will provide actual flow that will be used in the public meetings to demonstrate to homeowners at the "top of the hill" that they contribute to the problem and are flooding their neighbors. The outcome from the two rounds of micrometering will give actual flow values that can be used as well as % of contribution for small areas (one or 2 blocks). This data, combined with the alternative analysis, will be important in providing elected officials and decision makers with information to evaluate the merits of a private property source removal program.

A property questionnaire is included in the scope. This would be distributed in door hangar packet with self-addressed, stamped envelope. Questions will be used to identify if they have basement, sump pump, discharge location of sump pump, prior basement backup history, etc. Results from property questionnaire will be summarized on map and scanned copies of questionnaires will also be included in the report to the City. Property questionnaires will be helpful in determining cost and extent to which private property work will be effective at reducing I/I.

Typical details for illicit connection control will be taken from other progressive communities, and be presented to the City for discussion and modification prior to inclusion in the final report.

I look forward to discussing the scope with you and making adjustments based on our conversations.

Sincerely,

STANTEC CONSULTING SERVICES INC.

Robert J. Campbell, P.E.

Principal

Tel: (636) 343-3880, ext. 7007

Fax: (636) 343-3554

Bob.campbell2@stantec.com

Option	1:

Construction

Contingencies Engineering Gravity sewer, intercept flow from 8" sewer divert downstream to main interceptor

			-			i
- 1	11	п.	-	t.	O	
- 3	.,	4.		١.	u	ı

Total

Proposed Sewer	Unit Cost (\$)	Total C	ost (\$)	Contingencies & Engineering (%)
1000	550	\$	550,000	
		\$	110,000	20
		\$	132,000	20
	Total	\$	792,000	

Based on recent bids 2200' of 15" sewer, StL MSD 1/2013, dewatering, jack & bore

Option 2:

Install duplex PS, emergency generator, forcemain, 900 gpm

Contingencies &

Engineering (%)

Pump Sation
Forcemain
Contingencies
Engineering

	rugineering [va]
\$ 1,110,800	
\$ 38,000	
\$ 229,760	20
\$ 275,712	20
\$ 1,654,272	

Cost = 905400(Capacity)^.7793 - Lexington, KY Planning Level Assessment. 2013 10" forcemain @ \$95/ft at 400

Option 3:

620,000 gallons of stroage

Contingencies &

n
ies
g

Volume	Unit C	Cost	Total (Cost	Engineering (%)
620000	\$	5.00	\$	3,100,000	
			\$	620,000	20
			\$	744,000	20
Total			\$	4,464,000	

Based on Planning Level Assessment - Lexington, KY, 2013

Option 4:

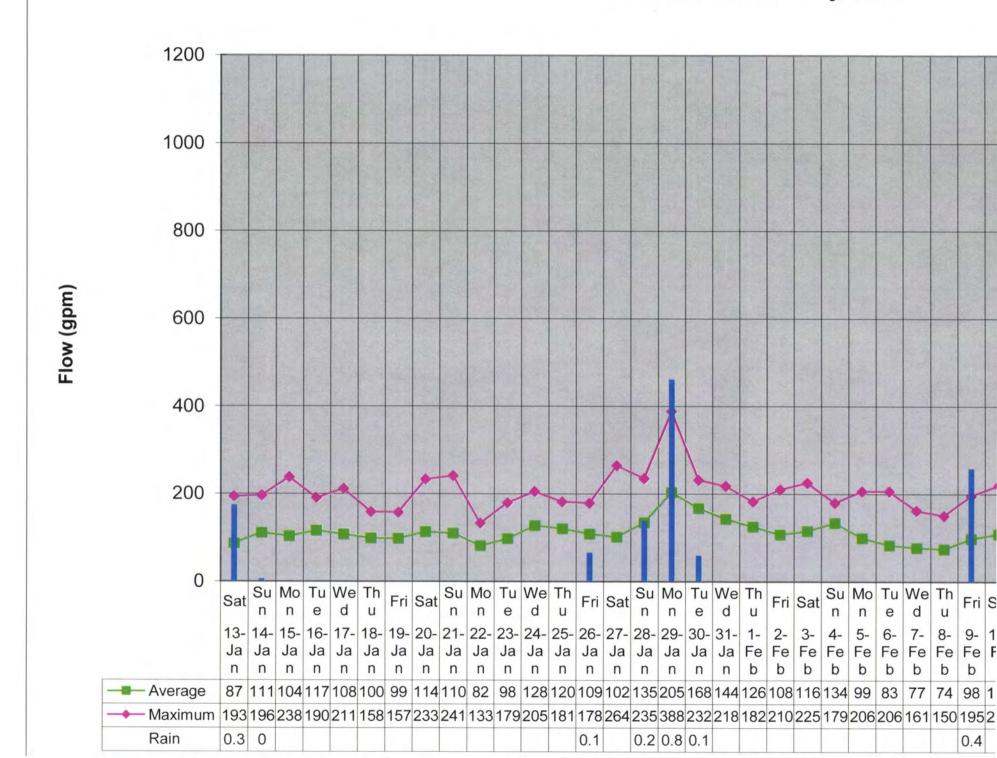
Private property

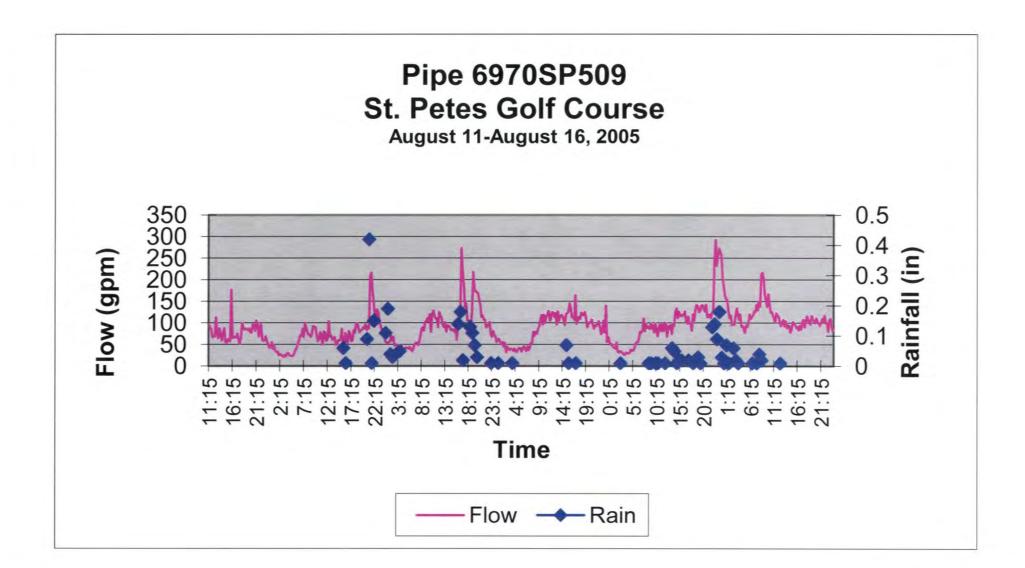
Homeowner lateral lining
Stairwell Darin disconnect
Manhole Rehab
Sewer Rehab
Contingencies
Engineering

	%					Contingencies &	
No.	Participation	Unit Cost		Total	Cost	Engineering (%)	
120	70	\$	2,000	\$	168,000		Cured-in-place at \$50/ft - (Louisville MSD)
124	20	\$	3,500	\$	86,800		Estimate
184	30	\$	1,000	\$	55,200		Unit Cost - Lexington, KY
44500	20	\$	40	\$	356,000		Unit Cost - Lexington, KY
				\$	133,200	20	
				\$	79,920	10	
Total				\$	879,120		

Attachment 8

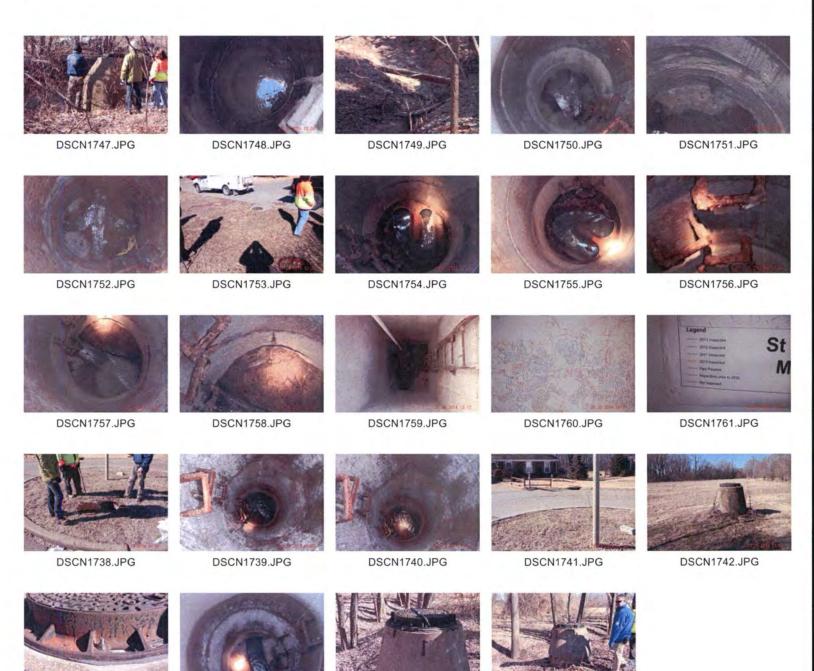
Westwood Sanitary Sewer





FLOW SUMMARY								
		Average	Maximum	Rain				
Date	Day	gpm	gpm	in				
12-Jan		61	77					
13-Jan	Sat	87	193	0.29				
14-Jan	Sun	111	196	0.0				
15-Jan	Mon	104	238					
16-Jan	Tue	117	190					
17-Jan	Wed	108	211					
18-Jan	Thu	100	158					
19-Jan	Fri	99	157					
20-Jan	Sat	114	233					
21-Jan	Sun	110	241					
22-Jan	Mon	82	133					
23-Jan	Tue	98	179					
24-Jan	Wed	128	205					
25-Jan	Thu	120	181					
	Fri	109	178	0.1				
27-Jan	Sat	102	264					
28-Jan	Sun	135	235	0.2				
	Mon	205	388	0.7				
30-Jan	Tue	168	232	0.				
	Wed	144	218	0.				
1-Feb		126	182					
2-Feb		108	210					
3-Feb		116	225					
4-Feb		134	179					
5-Feb		99	206					
6-Feb	Tue	83	206					
7-Feb		77	161					
8-Feb	Thu	74	150					
	Fri	98	195	0.4				
				0.4				
10-Feb	Sat	109	219					
11-Feb		143	241					
12-Feb		136	212					
13-Feb		134						
14-Feb		132						
15-Feb		147						
16-Feb		140						
17-Feb		138						
18-Feb		120						
19-Feb		124						
20-Feb		126						
21-Feb		125						
22-Feb		136						
23-Feb		116						
24-Feb		351		1.7				
25-Feb	Sun	228		0.				
Minimum		61						
Dry Weather		115						
Average		125						
Maximum		351	1055					

Attachment 9



DSCN1745.JPG

DSCN1746.JPG

DSCN1743.JPG

DSCN1744.JPG













